

- 
- [1] M. Aaboud *et al.* [ATLAS Collaboration], “Operation and performance of the ATLAS Tile Calorimeter in Run 1,” arXiv:1806.02129 [hep-ex].
- [2] M. Aaboud *et al.* [ATLAS Collaboration], “Search for chargino-neutralino production using recursive jigsaw reconstruction in final states with two or three charged leptons in proton-proton collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector,” arXiv:1806.02293 [hep-ex].
- [3] M. Aaboud *et al.* [ATLAS Collaboration], “Search for pair production of heavy vector-like quarks decaying into high- $p_T$   $W$  bosons and top quarks in the lepton-plus-jets final state in  $pp$  collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector,” arXiv:1806.01762 [hep-ex].
- [4] M. Aaboud *et al.* [ATLAS Collaboration], “Search for resonant  $WZ$  production in the fully leptonic final state in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1806.01532 [hep-ex].
- [5] M. Aaboud *et al.* [ATLAS Collaboration], “Observation of Higgs boson production in association with a top quark pair at the LHC with the ATLAS detector,” arXiv:1806.00425 [hep-ex].
- [6] M. Aaboud *et al.* [ATLAS Collaboration], “Measurement of the Higgs boson mass in the  $H \rightarrow ZZ^* \rightarrow 4\ell$  and  $H \rightarrow \gamma\gamma$  channels with  $\sqrt{s} = 13$  TeV  $pp$  collisions using the ATLAS detector,” arXiv:1806.00242 [hep-ex].
- [7] M. Aaboud *et al.* [ATLAS Collaboration], “Search for new phenomena using the invariant mass distribution of same-flavour opposite-sign dilepton pairs in events with missing transverse momentum in  $\sqrt{s} = 13$  TeV  $pp$  collisions with the ATLAS detector,” arXiv:1805.11381 [hep-ex].
- [8] M. Aaboud *et al.* [ATLAS Collaboration], “Combined measurement of differential and total cross sections in the  $H \rightarrow \gamma\gamma$  and the  $H \rightarrow ZZ^* \rightarrow 4\ell$  decay channels at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1805.10197 [hep-ex].
- [9] M. Aaboud *et al.* [ATLAS Collaboration], “Search for resonances in the mass distribution of jet pairs with one or two jets identified as  $b$ -jets in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1805.09299 [hep-ex].
- [10] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the nuclear modification factor for inclusive jets in Pb+Pb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV with the ATLAS detector,” arXiv:1805.05635 [nucl-ex].
- [11] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of jet fragmentation in Pb+Pb and  $pp$  collisions at  $\sqrt{s_{NN}} = 5.02$  TeV with the ATLAS detector,” arXiv:1805.05424 [nucl-ex].
- [12] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the suppression and azimuthal anisotropy of muons from heavy-flavor decays in Pb+Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector,” arXiv:1805.05220 [nucl-ex].
- [13] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of dijet azimuthal decorrelations in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector and determination of the strong coupling,” arXiv:1805.04691 [hep-ex].
- [14] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Angular analysis of  $B_d^0 \rightarrow K^* \mu^+ \mu^-$  decays in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” arXiv:1805.04000 [hep-ex].
- [15] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Prompt and non-prompt  $J/\psi$  and  $\psi(2S)$  suppression at high transverse momentum in 5.02 TeV Pb+Pb collisions with the ATLAS experiment,” arXiv:1805.04077 [nucl-ex].
- [16] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for flavor-changing neutral currents in top quark decays  $t \rightarrow Hc$  and  $t \rightarrow Hu$  in multilepton final states in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1805.03483 [hep-ex].
- [17] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of colour flow using jet-pull observables in  $t\bar{t}$  events with the ATLAS experiment at  $\sqrt{s} = 13$  TeV,” arXiv:1805.02935 [hep-ex].
- [18] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in final states with charm jets and missing transverse momentum in 13 TeV  $pp$  collisions with the ATLAS detector,” arXiv:1805.01649 [hep-ex].
- [19] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy resonances decaying to a photon and a hadronically decaying  $Z/W/H$  boson in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1805.01908 [hep-ex].
- [20] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of  $b$ -jet tagging efficiency with the ATLAS detector using  $t\bar{t}$  events at  $\sqrt{s} = 13$  TeV,” arXiv:1805.01845 [hep-ex].
- [21] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy particles decaying into top-quark pairs using lepton-plus-jets events in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,”
- [22] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for lepton-flavor-violating decays of the  $Z$  boson into a  $\tau$ -lepton and a light lepton with the ATLAS detector,”
- [23] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of Higgs bosons in the  $b\bar{b}b\bar{b}$  final state using proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1804.06174 [hep-ex].
- [24] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for R-parity-violating supersymmetric particles in multi-jet final states produced in  $p$ - $p$  collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector at the LHC,” arXiv:1804.03568 [hep-ex].
- [25] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in events with four or more leptons in  $\sqrt{s} = 13$  TeV  $pp$  collisions with ATLAS,” arXiv:1804.03602 [hep-ex].
- [26] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for low-mass dijet resonances using trigger-level jets

- with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 13$  TeV,” arXiv:1804.03496 [hep-ex].
- [27] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a heavy Higgs boson decaying into a  $Z$  boson and another heavy Higgs boson in the  $\ell\ell b\bar{b}$  final state in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1804.01126 [hep-ex].
- [28] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Higgs boson decays into pairs of light (pseudo)scalar particles in the  $\gamma\gamma jj$  final state in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,”
- [29] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for top squarks decaying to tau sleptons in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1803.10178 [hep-ex].
- [30] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for flavour-changing neutral current top-quark decays  $t \rightarrow qZ$  in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1803.09923 [hep-ex].
- [31] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of up-type vector-like quarks and for four-top-quark events in final states with multiple  $b$ -jets with the ATLAS detector,” arXiv:1803.09678 [hep-ex].
- [32] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for electroweak production of supersymmetric particles in final states with two or three leptons at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1803.02762 [hep-ex].
- [33] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of missing transverse momentum reconstruction with the ATLAS detector using proton-proton collisions at  $\sqrt{s} = 13$  TeV,” arXiv:1802.08168 [hep-ex].
- [34] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of differential cross sections of top quark pair production in association with jets in  $pp$  collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector,” arXiv:1802.06572 [hep-ex].
- [35] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Decay of the Higgs Boson to Charm Quarks with the ATLAS Experiment,” arXiv:1802.04329 [hep-ex].
- [36] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of Higgs boson properties in the diphoton decay channel with  $36 \text{ fb}^{-1}$  of  $pp$  collision data at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1802.04146 [hep-ex].
- [37] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Higgs boson decays to beyond-the-Standard-Model light bosons in four-lepton events with the ATLAS detector at  $\sqrt{s} = 13$  TeV,” arXiv:1802.03388 [hep-ex].
- [38] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for photonic signatures of gauge-mediated supersymmetry in 13 TeV  $pp$  collisions with the ATLAS detector,” arXiv:1802.03158 [hep-ex].
- [39] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a Structure in the  $B_s^0 \pi^\pm$  Invariant Mass Spectrum with the ATLAS Experiment,” arXiv:1802.01840 [hep-ex].
- [40] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for light resonances decaying to boosted quark pairs and produced in association with a photon or a jet in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” arXiv:1801.08769 [hep-ex].
- [41] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $W' \rightarrow tb$  decays in the hadronic final state using  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **781** (2018) 327 doi:10.1016/j.physletb.2018.03.036 [arXiv:1801.07893 [hep-ex]].
- [42] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for High-Mass Resonances Decaying to  $\tau\nu$  in  $pp$  Collisions at  $\sqrt{s} = 13$  TeV with the ATLAS Detector,” Phys. Rev. Lett. **120** (2018) no.16, 161802 doi:10.1103/PhysRevLett.120.161802 [arXiv:1801.06992 [hep-ex]].
- [43] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of  $t\bar{t}$  differential cross-sections of highly boosted top quarks decaying to all-hadronic final states in  $pp$  collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector,” arXiv:1801.02052 [hep-ex].
- [44] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the cross section for isolated-photon plus jet production in  $pp$  collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector,” Phys. Lett. B **780** (2018) 578 doi:10.1016/j.physletb.2018.03.035 [arXiv:1801.00112 [hep-ex]].
- [45] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the standard model Higgs boson produced in association with top quarks and decaying into a  $b\bar{b}$  pair in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Rev. D **97** (2018) no.7, 072016 doi:10.1103/PhysRevD.97.072016 [arXiv:1712.08895 [hep-ex]].
- [46] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Evidence for the associated production of the Higgs boson and a top quark pair with the ATLAS detector,” Phys. Rev. D **97** (2018) no.7, 072003 doi:10.1103/PhysRevD.97.072003 [arXiv:1712.08891 [hep-ex]].
- [47] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for electroweak production of supersymmetric states in scenarios with compressed mass spectra at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Rev. D **97** (2018) no.5, 052010 doi:10.1103/PhysRevD.97.052010 [arXiv:1712.08119 [hep-ex]].
- [48] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production cross section of three isolated photons in  $pp$  collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” Phys. Lett. B **781** (2018) 55 doi:10.1016/j.physletb.2018.03.057 [arXiv:1712.07291 [hep-ex]].
- [49] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive and fiducial  $t\bar{t}$  production cross-sections in the lepton+jets channel in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” arXiv:1712.06857 [hep-ex].
- [50] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy resonances decaying into a  $W$  or  $Z$  boson and a Higgs boson in final states with leptons and  $b$ -jets in  $36 \text{ fb}^{-1}$  of  $\sqrt{s} = 13$  TeV  $pp$  collisions with the ATLAS detector,” JHEP **1803** (2018) 174 doi:10.1007/JHEP03(2018)174 [arXiv:1712.06518 [hep-ex]].
- [51] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy ZZ resonances in the  $\ell^+\ell^-\ell^+\ell^-$  and  $\ell^+\ell^-\nu\bar{\nu}$  final states using proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Eur. Phys. J. C **78** (2018) no.4,

- 293 doi:10.1140/epjc/s10052-018-5686-3 [arXiv:1712.06386 [hep-ex]].
- [52] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for exclusive Higgs and  $Z$  boson decays to  $\phi\gamma$  and  $\rho\gamma$  with the ATLAS detector,” arXiv:1712.02758 [hep-ex].
- [53] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for squarks and gluinos in final states with jets and missing transverse momentum using  $36\text{ fb}^{-1}$  of  $\sqrt{s}=13\text{ TeV}$   $pp$  collision data with the ATLAS detector,” arXiv:1712.02332 [hep-ex].
- [54] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the Higgs boson coupling properties in the  $H \rightarrow ZZ^* \rightarrow 4\ell$  decay channel at  $\sqrt{s} = 13\text{ TeV}$  with the ATLAS detector,” JHEP **1803** (2018) 095 doi:10.1007/JHEP03(2018)095 [arXiv:1712.02304 [hep-ex]].
- [55] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for long-lived charginos based on a disappearing-track signature in  $pp$  collisions at  $\sqrt{s} = 13\text{ TeV}$  with the ATLAS detector,” arXiv:1712.02118 [hep-ex].
- [56] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of differential cross-sections of a single top quark produced in association with a  $W$  boson at  $\sqrt{s} = 13\text{ TeV}$  with ATLAS,” Eur. Phys. J. C **78** (2018) no.3, 186 doi:10.1140/epjc/s10052-018-5649-8 [arXiv:1712.01602 [hep-ex]].
- [57] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for top-squark pair production in final states with one lepton, jets, and missing transverse momentum using  $36\text{ fb}^{-1}$  of  $\sqrt{s} = 13\text{ TeV}$   $pp$  collision data with the ATLAS detector,” arXiv:1711.11520 [hep-ex].
- [58] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A measurement of the soft-drop jet mass in  $pp$  collisions at  $\sqrt{s} = 13\text{ TeV}$  with the ATLAS detector,” arXiv:1711.08341 [hep-ex].
- [59] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter and other new phenomena in events with an energetic jet and large missing transverse momentum using the ATLAS detector,” JHEP **1801** (2018) 126 doi:10.1007/JHEP01(2018)126 [arXiv:1711.03301 [hep-ex]].
- [60] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of differential cross sections and  $W^+/W^-$  cross-section ratios for  $W$  boson production in association with jets at  $\sqrt{s} = 8\text{ TeV}$  with the ATLAS detector,” arXiv:1711.03296 [hep-ex].
- [61] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of inclusive jet and dijet cross-sections in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$  with the ATLAS detector,” arXiv:1711.02692 [hep-ex].
- [62] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Supersymmetry in final states with missing transverse momentum and multiple  $b$ -jets in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$  with the ATLAS detector,” arXiv:1711.01901 [hep-ex].
- [63] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter produced in association with bottom or top quarks in  $\sqrt{s} = 13\text{ TeV}$   $pp$  collisions with the ATLAS detector,” Eur. Phys. J. C **78** (2018) no.1, 18 doi:10.1140/epjc/s10052-017-5486-1 [arXiv:1710.11412 [hep-ex]].
- [64] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for doubly charged Higgs boson production in multi-lepton final states with the ATLAS detector using proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$ ,” Eur. Phys. J. C **78** (2018) no.3, 199 doi:10.1140/EPJC/S10052-018-5661-Z, 10.1140/epjc/s10052-018-5661-z [arXiv:1710.09748 [hep-ex]].
- [65] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of differential cross sections of isolated-photon plus heavy-flavour jet production in  $pp$  collisions at  $\sqrt{s} = 8\text{ TeV}$  using the ATLAS detector,” Phys. Lett. B **776** (2018) 295 doi:10.1016/j.physletb.2017.11.054 [arXiv:1710.09560 [hep-ex]].
- [66] D. P. Kirilova and V. M. Chizhov, “Chiral tensor particles in the early Universe – Present status,” Mod. Phys. Lett. A **32** (2017) no.34, 1750187 doi:10.1142/S0217732317501875 [arXiv:1711.07895 [hep-ph]].
- [67] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $WW/WZ$  resonance production in  $lvqq$  final states in  $pp$  collisions at  $\sqrt{s} = 13\text{ TeV}$  with the ATLAS detector,” JHEP **1803** (2018) 042 doi:10.1007/JHEP03(2018)042 [arXiv:1710.07235 [hep-ex]].
- [68] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for pair-produced resonances in four-jet final states at  $\sqrt{s} = 13\text{ TeV}$  with the ATLAS detector,” Eur. Phys. J. C **78** (2018) no.3, 250 doi:10.1140/epjc/s10052-018-5693-4 [arXiv:1710.07171 [hep-ex]].
- [69] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $B - L$  R-parity-violating top squarks in  $\sqrt{s} = 13\text{ TeV}$   $pp$  collisions with the ATLAS experiment,” Phys. Rev. D **97** (2018) no.3, 032003 doi:10.1103/PhysRevD.97.032003 [arXiv:1710.05544 [hep-ex]].
- [70] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the Drell–Yan triple-differential cross section in  $pp$  collisions at  $\sqrt{s} = 8\text{ TeV}$ ,” JHEP **1712** (2017) 059 doi:10.1007/JHEP12(2017)059 [arXiv:1710.05167 [hep-ex]].
- [71] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for long-lived, massive particles in events with displaced vertices and missing transverse momentum in  $\sqrt{s} = 13\text{ TeV}$   $pp$  collisions with the ATLAS detector,” Phys. Rev. D **97** (2018) no.5, 052012 doi:10.1103/PhysRevD.97.052012 [arXiv:1710.04901 [hep-ex]].
- [72] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production cross-section of a single top quark in association with a  $Z$  boson in proton-proton collisions at  $13\text{ TeV}$  with the ATLAS detector,” Phys. Lett. B **780** (2018) 557 doi:10.1016/j.physletb.2018.03.023 [arXiv:1710.03659 [hep-ex]].
- [73] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy resonances decaying into  $WW$  in the  $e\nu\mu\nu$  final state in  $pp$  collisions at  $\sqrt{s} = 13\text{ TeV}$  with the ATLAS detector,” Eur. Phys. J. C **78** (2018) no.1, 24 doi:10.1140/epjc/s10052-017-5491-4 [arXiv:1710.01123 [hep-ex]].
- [74] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in high-mass final states with a photon and a jet from  $pp$  collisions at  $\sqrt{s} = 13\text{ TeV}$  with the ATLAS detector,” Eur. Phys. J. C **78** (2018) no.2, 102 doi:10.1140/epjc/s10052-018-5553-2 [arXiv:1709.10440 [hep-ex]].

- [75] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the cross-section for electroweak production of dijets in association with a Z boson in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” *Phys. Lett. B* **775** (2017) 206 doi:10.1016/j.physletb.2017.10.040 [arXiv:1709.10264 [hep-ex]].
- [76] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of lepton differential distributions and the top quark mass in  $t\bar{t}$  production in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **77** (2017) no.11, 804 doi:10.1140/epjc/s10052-017-5349-9 [arXiv:1709.09407 [hep-ex]].
- [77] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “ $ZZ \rightarrow \ell^+ \ell^- \ell'^+ \ell'^-$  cross-section measurements and search for anomalous triple gauge couplings in 13 TeV pp collisions with the ATLAS detector,” *Phys. Rev. D* **97** (2018) no.3, 032005 doi:10.1103/PhysRevD.97.032005 [arXiv:1709.07703 [hep-ex]].
- [78] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of ordered hadron chains with the ATLAS detector,” *Phys. Rev. D* **96** (2017) no.9, 092008 doi:10.1103/PhysRevD.96.092008 [arXiv:1709.07384 [hep-ex]].
- [79] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for additional heavy neutral Higgs and gauge bosons in the ditau final state produced in 36 fb<sup>-1</sup> of pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” *JHEP* **1801** (2018) 055 doi:10.1007/JHEP01(2018)055 [arXiv:1709.07242 [hep-ex]].
- [80] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for resonances decaying into a Higgs boson and a new particle X in the  $XH \rightarrow qqbb$  final state with the ATLAS detector,” *Phys. Lett. B* **779** (2018) 24 doi:10.1016/j.physletb.2018.01.042 [arXiv:1709.06783 [hep-ex]].
- [81] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS and CMS Collaborations], “Combination of inclusive and differential  $t\bar{t}$  charge asymmetry measurements using ATLAS and CMS data at  $\sqrt{s} = 7$  and 8 TeV,” *JHEP* **1804** (2018) 033 doi:10.1007/JHEP04(2018)033 [arXiv:1709.05327 [hep-ex]].
- [82] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Direct top-quark decay width measurement in the  $t\bar{t}$  lepton+jets channel at  $\sqrt{s}=8$  TeV with the ATLAS experiment,” *Eur. Phys. J. C* **78** (2018) no.2, 129 doi:10.1140/epjc/s10052-018-5595-5 [arXiv:1709.04207 [hep-ex]].
- [83] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a scalar partner of the top quark in the jets plus missing transverse momentum final state at  $\sqrt{s}=13$  TeV with the ATLAS detector,” *JHEP* **1712** (2017) 085 doi:10.1007/JHEP12(2017)085 [arXiv:1709.04183 [hep-ex]].
- [84] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $\tau$  polarisation in  $Z/\gamma^* \rightarrow \tau\tau$  decays in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **78** (2018) no.2, 163 doi:10.1140/epjc/s10052-018-5619-1 [arXiv:1709.03490 [hep-ex]].
- [85] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of quarkonium production in proton-lead and proton-proton collisions at 5.02 TeV with the ATLAS detector,” *Eur. Phys. J. C* **78** (2018) no.3, 171 doi:10.1140/epjc/s10052-018-5624-4 [arXiv:1709.03089 [nucl-ex]].
- [86] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of longitudinal flow decorrelations in Pb+Pb collisions at  $\sqrt{s_{NN}} = 2.76$  and 5.02 TeV with the ATLAS detector,” *Eur. Phys. J. C* **78** (2018) no.2, 142 doi:10.1140/epjc/s10052-018-5605-7 [arXiv:1709.02301 [nucl-ex]].
- [87] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Searches for heavy ZZ and ZW resonances in the  $\ell\ell qq$  and  $\nu\nu qq$  final states in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” *JHEP* **1803** (2018) 009 doi:10.1007/JHEP03(2018)009 [arXiv:1708.09638 [hep-ex]].
- [88] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for an invisibly decaying Higgs boson or dark matter candidates produced in association with a Z boson in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” *Phys. Lett. B* **776** (2018) 318 doi:10.1016/j.physletb.2017.11.049 [arXiv:1708.09624 [hep-ex]].
- [89] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in events with b-tagged jets and missing transverse momentum in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” *JHEP* **1711** (2017) 195 doi:10.1007/JHEP11(2017)195 [arXiv:1708.09266 [hep-ex]].
- [90] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for squarks and gluinos in events with an isolated lepton, jets, and missing transverse momentum at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” *Phys. Rev. D* **96** (2017) no.11, 112010 doi:10.1103/PhysRevD.96.112010 [arXiv:1708.08232 [hep-ex]].
- [91] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the direct production of charginos and neutralinos in final states with tau leptons in  $\sqrt{s} = 13$  TeV pp collisions with the ATLAS detector,” *Eur. Phys. J. C* **78** (2018) no.2, 154 doi:10.1140/epjc/s10052-018-5583-9 [arXiv:1708.07875 [hep-ex]].
- [92] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for diboson resonances with boson-tagged jets in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” *Phys. Lett. B* **777** (2018) 91 doi:10.1016/j.physletb.2017.12.011 [arXiv:1708.04445 [hep-ex]].
- [93] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the exclusive  $\gamma\gamma \rightarrow \mu^+\mu^-$  process in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” *Phys. Lett. B* **777** (2018) 303 doi:10.1016/j.physletb.2017.12.043 [arXiv:1708.04053 [hep-ex]].
- [94] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of long-range multiparticle azimuthal correlations with the subevent cumulant method in pp and p + Pb collisions with the ATLAS detector at the CERN Large Hadron Collider,” *Phys. Rev. C* **97** (2018) no.2, 024904 doi:10.1103/PhysRevC.97.024904 [arXiv:1708.03559 [hep-ex]].
- [95] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Evidence for the  $H \rightarrow b\bar{b}$  decay with the ATLAS detector,” *JHEP* **1712** (2017) 024 doi:10.1007/JHEP12(2017)024 [arXiv:1708.03299 [hep-ex]].
- [96] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct top squark pair production in final states with two leptons in  $\sqrt{s} = 13$  TeV pp collisions with the ATLAS detector,” *Eur. Phys. J. C* **77** (2017) no.12, 898

- doi:10.1140/epjc/s10052-017-5445-x [arXiv:1708.03247 [hep-ex]].
- [97] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of inclusive and differential cross sections in the  $H \rightarrow ZZ^* \rightarrow 4\ell$  decay channel in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” JHEP **1710** (2017) 132 doi:10.1007/JHEP10(2017)132 [arXiv:1708.02810 [hep-ex]].
- [98] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena with large jet multiplicities and missing transverse momentum using large-radius jets and flavour-tagging at ATLAS in 13 TeV  $pp$  collisions,” JHEP **1712** (2017) 034 doi:10.1007/JHEP12(2017)034 [arXiv:1708.02794 [hep-ex]].
- [99] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of top-quark pair differential cross-sections in the lepton+jets channel in  $pp$  collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector,” JHEP **1711** (2017) 191 doi:10.1007/JHEP11(2017)191 [arXiv:1708.00727 [hep-ex]].
- [100] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Searches for the  $Z\gamma$  decay mode of the Higgs boson and for new high-mass resonances in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” JHEP **1710** (2017) 112 doi:10.1007/JHEP10(2017)112 [arXiv:1708.00212 [hep-ex]].
- [101] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy resonances decaying to a  $W$  or  $Z$  boson and a Higgs boson in the  $q\bar{q}^{(\prime)}b\bar{b}$  final state in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **774** (2017) 494 doi:10.1016/j.physletb.2017.09.066 [arXiv:1707.06958 [hep-ex]].
- [102] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Heavy Higgs Bosons  $A/H$  Decaying to a Top Quark Pair in  $pp$  Collisions at  $\sqrt{s} = 8$  TeV with the ATLAS Detector,” Phys. Rev. Lett. **119** (2017) no.19, 191803 doi:10.1103/PhysRevLett.119.191803 [arXiv:1707.06025 [hep-ex]].
- [103] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of  $WW\gamma$  and  $WZ\gamma$  production in  $pp$  collisions at  $\sqrt{s} = 8$  TeV and search for anomalous quartic gauge couplings with the ATLAS experiment,” Eur. Phys. J. C **77** (2017) no.9, 646 doi:10.1140/epjc/s10052-017-5180-3 [arXiv:1707.05597 [hep-ex]].
- [104] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Analysis of the  $Wtb$  vertex from the measurement of triple-differential angular decay rates of single top quarks produced in the  $t$ -channel at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1712** (2017) 017 doi:10.1007/JHEP12(2017)017 [arXiv:1707.05393 [hep-ex]].
- [105] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in high-mass diphoton final states using  $37 \text{ fb}^{-1}$  of proton–proton collisions collected at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **775** (2017) 105 doi:10.1016/j.physletb.2017.10.039 [arXiv:1707.04147 [hep-ex]].
- [106] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of heavy vector-like quarks decaying to high- $p_T$   $W$  bosons and  $b$  quarks in the lepton-plus-jets final state in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” JHEP **1710** (2017) 141 doi:10.1007/JHEP10(2017)141 [arXiv:1707.03347 [hep-ex]].
- [107] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of detector-corrected observables sensitive to the anomalous production of events with jets and large missing transverse momentum in  $pp$  collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector,” Eur. Phys. J. C **77** (2017) no.11, 765 doi:10.1140/epjc/s10052-017-5315-6 [arXiv:1707.03263 [hep-ex]].
- [108] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of the material of the ATLAS inner detector for Run 2 of the LHC,” JINST **12** (2017) no.12, P12009 doi:10.1088/1748-0221/12/12/P12009 [arXiv:1707.02826 [hep-ex]].
- [109] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Determination of the strong coupling constant  $\alpha_s$  from transverse energy-energy correlations in multijet events at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” Eur. Phys. J. C **77** (2017) no.12, 872 doi:10.1140/epjc/s10052-017-5442-0 [arXiv:1707.02562 [hep-ex]].
- [110] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new high-mass phenomena in the dilepton final state using  $36 \text{ fb}^{-1}$  of proton-proton collision data at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” JHEP **1710** (2017) 182 doi:10.1007/JHEP10(2017)182 [arXiv:1707.02424 [hep-ex]].
- [111] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for top quark decays  $t \rightarrow qH$ , with  $H \rightarrow \gamma\gamma$ , in  $\sqrt{s} = 13$  TeV  $pp$  collisions using the ATLAS detector,” JHEP **1710** (2017) 129 doi:10.1007/JHEP10(2017)129 [arXiv:1707.01404 [hep-ex]].
- [112] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Dark Matter Produced in Association with a Higgs Boson Decaying to  $b\bar{b}$  using  $36 \text{ fb}^{-1}$  of  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS Detector,” Phys. Rev. Lett. **119** (2017) no.18, 181804 doi:10.1103/PhysRevLett.119.181804 [arXiv:1707.01302 [hep-ex]].
- [113] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of jet  $p_T$  correlations in Pb+Pb and  $pp$  collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector,” Phys. Lett. B **774** (2017) 379 doi:10.1016/j.physletb.2017.09.078 [arXiv:1706.09363 [hep-ex]].
- [114] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a new heavy gauge boson resonance decaying into a lepton and missing transverse momentum in  $36 \text{ fb}^{-1}$  of  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS experiment,” arXiv:1706.04786 [hep-ex].
- [115] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct top squark pair production, in events with a Higgs or  $Z$  boson, and missing transverse momentum in  $\sqrt{s} = 13$  TeV  $pp$  collisions with the ATLAS detector,” JHEP **1708** (2017) 006 doi:10.1007/JHEP08(2017)006 [arXiv:1706.03986 [hep-ex]].
- [116] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter in association with a Higgs boson decaying to two photons at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Rev. D **96** (2017) no.11, 112004 doi:10.1103/PhysRevD.96.112004 [arXiv:1706.03948 [hep-ex]].
- [117] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in final states with two same-sign or three leptons and jets using  $36 \text{ fb}^{-1}$  of  $\sqrt{s} = 13$  TeV  $pp$  collision data with the ATLAS detector,” JHEP **1709** (2017)

- 084 doi:10.1007/JHEP09(2017)084 [arXiv:1706.03731 [hep-ex]].
- [118] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive jet cross-sections in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1709** (2017) 020 doi:10.1007/JHEP09(2017)020 [arXiv:1706.03192 [hep-ex]].
- [119] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $t\bar{t}\gamma$  production cross section in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1711** (2017) 086 doi:10.1007/JHEP11(2017)086 [arXiv:1706.03046 [hep-ex]].
- [120] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of jet fragmentation in 5.02 TeV proton-lead and proton-proton collisions with the ATLAS detector,” arXiv:1706.02859 [hep-ex].
- [121] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $WW/WZ \rightarrow lvqq'$  production with the hadronically decaying boson reconstructed as one or two jets in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with ATLAS, and constraints on anomalous gauge couplings,” Eur. Phys. J. C **77** (2017) no.8, 563 doi:10.1140/epjc/s10052-017-5084-2 [arXiv:1706.01702 [hep-ex]].
- [122] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of vector-like top quarks in events with one lepton, jets, and missing transverse momentum in  $\sqrt{s} = 13$  TeV  $pp$  collisions with the ATLAS detector,” JHEP **1708** (2017) 052 doi:10.1007/JHEP08(2017)052 [arXiv:1705.10751 [hep-ex]].
- [123] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the dimuon decay of the Higgs boson in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Rev. Lett. **119** (2017) no.5, 051802 doi:10.1103/PhysRevLett.119.051802 [arXiv:1705.04582 [hep-ex]].
- [124] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of multi-particle azimuthal correlations in  $pp$ ,  $p$ +Pb and low-multiplicity Pb+Pb collisions with the ATLAS detector,” Eur. Phys. J. C **77** (2017) no.6, 428 doi:10.1140/epjc/s10052-017-4988-1 [arXiv:1705.04176 [hep-ex]].
- [125] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $b$ -hadron pair production with the ATLAS detector in proton-proton collisions at  $\sqrt{s} = 8$  TeV,” JHEP **1711** (2017) 062 doi:10.1007/JHEP11(2017)062 [arXiv:1705.03374 [hep-ex]].
- [126] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Identification and rejection of pile-up jets at high pseudorapidity with the ATLAS detector,” Eur. Phys. J. C **77** (2017) no.9, 580 Erratum: [Eur. Phys. J. C **77** (2017) no.10, 712] doi:10.1140/epjc/s10052-017-5081-5, 10.1140/epjc/s10052-017-5245-3 [arXiv:1705.02211 [hep-ex]].
- [127] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Studies of  $Z\gamma$  production in association with a high-mass dijet system in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1707** (2017) 107 doi:10.1007/JHEP07(2017)107 [arXiv:1705.01966 [hep-ex]].
- [128] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in a lepton plus high jet multiplicity final state with the ATLAS experiment using  $\sqrt{s} = 13$  TeV proton-proton collision data,” JHEP **1709** (2017) 088 doi:10.1007/JHEP09(2017)088 [arXiv:1704.08493 [hep-ex]].
- [129] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of the ATLAS Track Reconstruction Algorithms in Dense Environments in LHC Run 2,” Eur. Phys. J. C **77** (2017) no.10, 673 doi:10.1140/epjc/s10052-017-5225-7 [arXiv:1704.07983 [hep-ex]].
- [130] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter at  $\sqrt{s} = 13$  TeV in final states containing an energetic photon and large missing transverse momentum with the ATLAS detector,” Eur. Phys. J. C **77** (2017) no.6, 393 doi:10.1140/epjc/s10052-017-4965-8 [arXiv:1704.03848 [hep-ex]].
- [131] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of integrated and differential cross sections for isolated photon pair production in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. D **95** (2017) no.11, 112005 doi:10.1103/PhysRevD.95.112005 [arXiv:1704.03839 [hep-ex]].
- [132] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Femtoscopy with identified charged pions in proton-lead collisions at  $\sqrt{s_{NN}} = 5.02$  TeV with ATLAS,” Phys. Rev. C **96** (2017) no.6, 064908 doi:10.1103/PhysRevC.96.064908 [arXiv:1704.01621 [hep-ex]].
- [133] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $k_t$  splitting scales in  $Z \rightarrow \ell\ell$  events in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1708** (2017) 026 doi:10.1007/JHEP08(2017)026 [arXiv:1704.01530 [hep-ex]].
- [134] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Jet reconstruction and performance using particle flow with the ATLAS Detector,” Eur. Phys. J. C **77** (2017) no.7, 466 doi:10.1140/epjc/s10052-017-5031-2 [arXiv:1703.10485 [hep-ex]].
- [135] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Jet energy scale measurements and their systematic uncertainties in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Rev. D **96** (2017) no.7, 072002 doi:10.1103/PhysRevD.96.072002 [arXiv:1703.09665 [hep-ex]].
- [136] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in dijet events using  $37 \text{ fb}^{-1}$  of  $pp$  collision data collected at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Rev. D **96** (2017) no.5, 052004 doi:10.1103/PhysRevD.96.052004 [arXiv:1703.09127 [hep-ex]].
- [137] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of electroweak  $Wjj$  production and constraints on anomalous gauge couplings with the ATLAS detector,” Eur. Phys. J. C **77** (2017) no.7, 474 doi:10.1140/epjc/s10052-017-5007-2 [arXiv:1703.04362 [hep-ex]].
- [138] M. V. Chizhov, “On properties of low-lying spin-1 hadron resonances,” Phys. Part. Nucl. **48** (2017) no.2, 243 [Fiz. Elem. Chast. Atom. Yadra **48** (2017) no.2., ]. doi:10.1134/S1063779617020034
- [139] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $t\bar{t}$  production cross section in the  $\tau$

- + jets final state in  $pp$  collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” Phys. Rev. D **95** (2017) no.7, 072003 doi:10.1103/PhysRevD.95.072003 [arXiv:1702.08839 [hep-ex]].
- [140] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Probing the W tb vertex structure in t-channel single-top-quark production and decay in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1704** (2017) 124 doi:10.1007/JHEP04(2017)124 [arXiv:1702.08309 [hep-ex]].
- [141] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Top-quark mass measurement in the all-hadronic  $t\bar{t}$  decay channel at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1709** (2017) 118 doi:10.1007/JHEP09(2017)118 [arXiv:1702.07546 [hep-ex]].
- [142] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of the ATLAS Transition Radiation Tracker in Run 1 of the LHC: tracker properties,” JINST **12** (2017) no.05, P05002 doi:10.1088/1748-0221/12/05/P05002 [arXiv:1702.06473 [hep-ex]].
- [143] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of the production cross section of a Z boson in association with jets in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Eur. Phys. J. C **77** (2017) no.6, 361 doi:10.1140/epjc/s10052-017-4900-z [arXiv:1702.05725 [hep-ex]].
- [144] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $W^+W^-$  production cross section in pp collisions at a centre-of-mass energy of  $\sqrt{s} = 13$  TeV with the ATLAS experiment,” Phys. Lett. B **773** (2017) 354 doi:10.1016/j.physletb.2017.08.047 [arXiv:1702.04519 [hep-ex]].
- [145] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Fiducial, total and differential cross-section measurements of t-channel single top-quark production in pp collisions at 8 TeV using data collected by the ATLAS detector,” Eur. Phys. J. C **77** (2017) no.8, 531 doi:10.1140/epjc/s10052-017-5061-9 [arXiv:1702.02859 [hep-ex]].
- [146] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Evidence for light-by-light scattering in heavy-ion collisions with the ATLAS detector at the LHC,” Nature Phys. **13** (2017) no.9, 852 doi:10.1038/nphys4208 [arXiv:1702.01625 [hep-ex]].
- [147] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of jet fragmentation in Pb+Pb and pp collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector at the LHC,” Eur. Phys. J. C **77** (2017) no.6, 379 doi:10.1140/epjc/s10052-017-4915-5 [arXiv:1702.00674 [hep-ex]].
- [148] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the W-boson mass in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Eur. Phys. J. C **78** (2018) no.2, 110 doi:10.1140/epjc/s10052-017-5475-4 [arXiv:1701.07240 [hep-ex]].
- [149] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the cross section for inclusive isolated-photon production in pp collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector,” Phys. Lett. B **770**, 473 (2017) doi:10.1016/j.physletb.2017.04.072 [arXiv:1701.06882 [hep-ex]].
- [150] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of charged-particle distributions sensitive to the underlying event in  $\sqrt{s} = 13$  TeV proton-proton collisions with the ATLAS detector at the LHC,” JHEP **1703**, 157 (2017) doi:10.1007/JHEP03(2017)157 [arXiv:1701.05390 [hep-ex]].
- [151] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the cross-section for producing a W boson in association with a single top quark in pp collisions at  $\sqrt{s} = 13$  TeV with ATLAS,” arXiv:1612.07231 [hep-ex].
- [152] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of top quark spin observables in  $t\bar{t}$  events using dilepton final states in  $\sqrt{s} = 8$  TeV pp collisions with the ATLAS detector,” JHEP **1703**, 113 (2017) doi:10.1007/JHEP03(2017)113 [arXiv:1612.07004 [hep-ex]].
- [153] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of top-quark pair differential cross-sections in the  $e\mu$  channel in pp collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector,” Eur. Phys. J. C **77**, no. 5, 292 (2017) doi:10.1140/epjc/s10052-017-4821-x [arXiv:1612.05220 [hep-ex]].
- [154] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of top-quark pair to Z-boson cross-section ratios at  $\sqrt{s} = 13, 8, 7$  TeV with the ATLAS detector,” JHEP **1702**, 117 (2017) doi:10.1007/JHEP02(2017)117 [arXiv:1612.03636 [hep-ex]].
- [155] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Precision measurement and interpretation of inclusive  $W^+$ ,  $W^-$  and  $Z/\gamma^*$  production cross sections with the ATLAS detector,” Eur. Phys. J. C **77**, no. 6, 367 (2017) doi:10.1140/epjc/s10052-017-4911-9 [arXiv:1612.03016 [hep-ex]].
- [156] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the prompt J/  $\psi$  pair production cross-section in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Eur. Phys. J. C **77**, no. 2, 76 (2017) doi:10.1140/epjc/s10052-017-4644-9 [arXiv:1612.02950 [hep-ex]].
- [157] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the W boson polarisation in  $t\bar{t}$  events from pp collisions at  $\sqrt{s} = 8$  TeV in the lepton + jets channel with ATLAS,” Eur. Phys. J. C **77**, no. 4, 264 (2017) doi:10.1140/epjc/s10052-017-4819-4 [arXiv:1612.02577 [hep-ex]].
- [158] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Electron efficiency measurements with the ATLAS detector using 2012 LHC proton-proton collision data,” Eur. Phys. J. C **77**, no. 3, 195 (2017) doi:10.1140/epjc/s10052-017-4756-2 [arXiv:1612.01456 [hep-ex]].
- [159] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Reconstruction of primary vertices at the ATLAS experiment in Run 1 proton-proton collisions at the LHC,” Eur. Phys. J. C **77**, no. 5, 332 (2017) doi:10.1140/epjc/s10052-017-4887-5 [arXiv:1611.10235 [physics.ins-det]].
- [160] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of the ATLAS Trigger System in 2015,” Eur. Phys. J. C **77**, no. 5, 317 (2017) doi:10.1140/epjc/s10052-017-4852-3 [arXiv:1611.09661 [hep-ex]].
- [161] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “High- $E_T$  isolated-photon plus jets production in pp

- collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Nucl. Phys. B **918**, 257 (2017) doi:10.1016/j.nuclphysb.2017.03.006 [arXiv:1611.06586 [hep-ex]].
- [162] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in events containing a same-flavour opposite-sign dilepton pair, jets, and large missing transverse momentum in  $\sqrt{s} = 13$   $pp$  collisions with the ATLAS detector,” Eur. Phys. J. C **77**, no. 3, 144 (2017) doi:10.1140/epjc/s10052-017-4700-5 [arXiv:1611.05791 [hep-ex]].
- [163] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $W^{\pm}W^{\pm}$  vector-boson scattering and limits on anomalous quartic gauge couplings with the ATLAS detector,” Phys. Rev. D **96**, no. 1, 012007 (2017) doi:10.1103/PhysRevD.96.012007 [arXiv:1611.02428 [hep-ex]].
- [164] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of jet activity produced in top-quark events with an electron, a muon and two  $b$ -tagged jets in the final state in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Eur. Phys. J. C **77**, no. 4, 220 (2017) doi:10.1140/epjc/s10052-017-4766-0 [arXiv:1610.09978 [hep-ex]].
- [165] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of  $\psi(2S)$  and  $X(3872) \rightarrow J/\psi\pi^+\pi^-$  production in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1701**, 117 (2017) doi:10.1007/JHEP01(2017)117 [arXiv:1610.09303 [hep-ex]].
- [166] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of charge and CP asymmetries in  $b$ -hadron decays using top-quark events collected by the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 8$  TeV,” JHEP **1702**, 071 (2017) doi:10.1007/JHEP02(2017)071 [arXiv:1610.07869 [hep-ex]].
- [167] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $ZZ$  production cross section in proton-proton collisions at  $\sqrt{s} = 8$  TeV using the  $ZZ \rightarrow \ell^-\ell^+\ell^-\ell^+$  and  $ZZ \rightarrow \ell^-\ell^+\nu\bar{\nu}$  channels with the ATLAS detector,” JHEP **1701**, 099 (2017) doi:10.1007/JHEP01(2017)099 [arXiv:1610.07585 [hep-ex]].
- [168] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for triboson  $W^{\pm}W^{\pm}W^{\mp}$  production in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Eur. Phys. J. C **77**, no. 3, 141 (2017) doi:10.1140/epjc/s10052-017-4692-1 [arXiv:1610.05088 [hep-ex]].
- [169] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of algorithms that reconstruct missing transverse momentum in  $\sqrt{s} = 8$  TeV proton-proton collisions in the ATLAS detector,” Eur. Phys. J. C **77**, no. 4, 241 (2017) doi:10.1140/epjc/s10052-017-4780-2 [arXiv:1609.09324 [hep-ex]].
- [170] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $W$  boson angular distributions in events with high transverse momentum jets at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” Phys. Lett. B **765**, 132 (2017) doi:10.1016/j.physletb.2016.12.005 [arXiv:1609.07045 [hep-ex]].
- [171] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of long-range azimuthal anisotropies and associated Fourier coefficients for  $pp$  collisions at  $\sqrt{s} = 5.02$  and 13 TeV and  $p$ +Pb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV with the ATLAS detector,” Phys. Rev. C **96**, no. 2, 024908 (2017) [arXiv:1609.06213 [nucl-ex]].
- [172] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for anomalous electroweak production of  $WW/WZ$  in association with a high-mass dijet system in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. D **95**, no. 3, 032001 (2017) doi:10.1103/PhysRevD.95.032001 [arXiv:1609.05122 [hep-ex]].
- [173] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter in association with a Higgs boson decaying to  $b$ -quarks in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **765**, 11 (2017) doi:10.1016/j.physletb.2016.11.035 [arXiv:1609.04572 [hep-ex]].
- [174] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A measurement of material in the ATLAS tracker using secondary hadronic interactions in 7 TeV  $pp$  collisions,” JINST **11**, no. 11, P11020 (2016) doi:10.1088/1748-0221/11/11/P11020 [arXiv:1609.04305 [hep-ex]].
- [175] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive cross-sections of single top-quark and top-antiquark  $t$ -channel production in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” JHEP **1704**, 086 (2017) doi:10.1007/JHEP04(2017)086 [arXiv:1609.03920 [hep-ex]].
- [176] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $t\bar{t}Z$  and  $t\bar{t}W$  production cross sections in multilepton final states using  $3.2 \text{ fb}^{-1}$  of  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Eur. Phys. J. C **77**, no. 1, 40 (2017) doi:10.1140/epjc/s10052-016-4574-y [arXiv:1609.01599 [hep-ex]].
- [177] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Luminosity determination in  $pp$  collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector at the LHC,” Eur. Phys. J. C **76**, no. 12, 653 (2016) doi:10.1140/epjc/s10052-016-4466-1 [arXiv:1608.03953 [hep-ex]].
- [178] M. J. Boland, ..., M.V. Chizhov *et al.* [CLIC and CLICdp Collaborations], “Updated baseline for a staged Compact Linear Collider,” doi:10.5170/CERN-2016-004 arXiv:1608.07537 [physics.acc-ph].
- [179] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $W^+W^-$  production in association with one jet in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Lett. B **763**, 114 (2016) doi:10.1016/j.physletb.2016.10.014 [arXiv:1608.03086 [hep-ex]].
- [180] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter produced in association with a hadronically decaying vector boson in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **763**, 251 (2016) doi:10.1016/j.physletb.2016.10.042 [arXiv:1608.02372 [hep-ex]].
- [181] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of hard double-parton scattering in four-jet events in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS experiment,” JHEP **1611**, 110 (2016) doi:10.1007/JHEP11(2016)110 [arXiv:1608.01857 [hep-ex]].
- [182] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Minimal Supersymmetric Standard Model Higgs bosons  $H/A$  and for a  $Z'$  boson in the  $\tau\tau$  final state produced in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS Detector,” Eur. Phys. J. C **76**, no. 11, 585 (2016) doi:10.1140/epjc/s10052-016-4400-6 [arXiv:1608.00890 [hep-ex]].



- [183] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Dark matter interpretations of ATLAS searches for the electroweak production of supersymmetric particles in  $\sqrt{s} = 8$  TeV proton-proton collisions,” JHEP **1609**, 175 (2016) doi:10.1007/JHEP09(2016)175 [arXiv:1608.00872 [hep-ex]].
- [184] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A measurement of the calorimeter response to single hadrons and determination of the jet energy scale uncertainty using LHC Run-1  $pp$ -collision data with the ATLAS detector,” Eur. Phys. J. C **77**, no. 1, 26 (2017) doi:10.1140/epjc/s10052-016-4580-0 [arXiv:1607.08842 [hep-ex]].
- [185] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $b\bar{b}$  dijet cross section in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Eur. Phys. J. C **76**, no. 12, 670 (2016) doi:10.1140/epjc/s10052-016-4521-y [arXiv:1607.08430 [hep-ex]].
- [186] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in different-flavour high-mass dilepton final states in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Eur. Phys. J. C **76**, no. 10, 541 (2016) doi:10.1140/epjc/s10052-016-4385-1 [arXiv:1607.08079 [hep-ex]].
- [187] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of top quark pair differential cross-sections in the dilepton channel in  $pp$  collisions at  $\sqrt{s} = 7$  and 8 TeV with ATLAS,” Phys. Rev. D **94**, no. 9, 092003 (2016) doi:10.1103/PhysRevD.94.092003 [arXiv:1607.07281 [hep-ex]].
- [188] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the total cross section from elastic scattering in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Lett. B **761**, 158 (2016) doi:10.1016/j.physletb.2016.08.020 [arXiv:1607.06605 [hep-ex]].
- [189] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy resonances decaying to a  $Z$  boson and a photon in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **764**, 11 (2017) doi:10.1016/j.physletb.2016.11.005 [arXiv:1607.06363 [hep-ex]].
- [190] V. A. Bednyakov, I. V. Yelitskikh, M. V. Chizhov and I. R. Boyko, “Anomalously interacting  $Z^*$  bosons: an example of JINR’s contribution to physics at LHC,” Phys. Usp. **59**, no. 4, 403 (2016) [Usp. Fiz. Nauk **186**, no. 4, 425 (2016)]. doi:10.3367/UFNe.0186.201604d.0425
- [191] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for squarks and gluinos in events with hadronically decaying tau leptons, jets and missing transverse momentum in proton-proton collisions at  $\sqrt{s} = 13$  TeV recorded with the ATLAS detector,” Eur. Phys. J. C **76**, no. 12, 683 (2016) doi:10.1140/epjc/s10052-016-4481-2 [arXiv:1607.05979 [hep-ex]].
- [192] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new resonances decaying to a  $W$  or  $Z$  boson and a Higgs boson in the  $\ell^+\ell^-b\bar{b}$ ,  $\ell\nu b\bar{b}$ , and  $\nu\bar{\nu}b\bar{b}$  channels with  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **765**, 32 (2017) doi:10.1016/j.physletb.2016.11.045 [arXiv:1607.05621 [hep-ex]].
- [193] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of exclusive  $\gamma\gamma \rightarrow W^+W^-$  production and search for exclusive Higgs boson production in  $pp$  collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” Phys. Rev. D **94**, no. 3, 032011 (2016) doi:10.1103/PhysRevD.94.032011 [arXiv:1607.03745 [hep-ex]].
- [194] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for high-mass new phenomena in the dilepton final state using proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **761**, 372 (2016) doi:10.1016/j.physletb.2016.08.055 [arXiv:1607.03669 [hep-ex]].
- [195] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Higgs and  $Z$  Boson Decays to  $\phi\gamma$  with the ATLAS Detector,” Phys. Rev. Lett. **117**, no. 11, 111802 (2016) doi:10.1103/PhysRevLett.117.111802 [arXiv:1607.03400 [hep-ex]].
- [196] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of jet activity in top quark events using the  $e\mu$  final state with two  $b$ -tagged jets in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1609**, 074 (2016) doi:10.1007/JHEP09(2016)074 [arXiv:1606.09490 [hep-ex]].
- [197] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in a final state containing two photons and missing transverse momentum in  $\sqrt{s} = 13$  TeV  $pp$  collisions at the LHC using the ATLAS detector,” Eur. Phys. J. C **76**, no. 9, 517 (2016) doi:10.1140/epjc/s10052-016-4344-x [arXiv:1606.09150 [hep-ex]].
- [198] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for bottom squark pair production in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Eur. Phys. J. C **76**, no. 10, 547 (2016) doi:10.1140/epjc/s10052-016-4382-4 [arXiv:1606.08772 [hep-ex]].
- [199] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Higgs boson produced in association with a  $W$  boson and decaying to four  $b$ -quarks via two spin-zero particles in  $pp$  collisions at 13 TeV with the ATLAS detector,” Eur. Phys. J. C **76**, no. 11, 605 (2016) doi:10.1140/epjc/s10052-016-4418-9 [arXiv:1606.08391 [hep-ex]].
- [200] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of forward-backward multiplicity correlations in lead-lead, proton-lead and proton-proton collisions with the ATLAS detector,” Phys. Rev. C **95**, no. 6, 064914 (2017) doi:10.1103/PhysRevC.95.064914 [arXiv:1606.08170 [hep-ex]].
- [201] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “The performance of the jet trigger for the ATLAS detector during 2011 data taking,” Eur. Phys. J. C **76**, no. 10, 526 (2016) doi:10.1140/epjc/s10052-016-4325-0 [arXiv:1606.07759 [hep-ex]].
- [202] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy long-lived charged  $R$ -hadrons with the ATLAS detector in 3.2 fb $^{-1}$  of proton-proton collision data at  $\sqrt{s} = 13$  TeV,” Phys. Lett. B **760**, 647 (2016) doi:10.1016/j.physletb.2016.07.042 [arXiv:1606.05129 [hep-ex]].
- [203] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Searches for heavy diboson resonances in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” JHEP **1609**, 173 (2016) doi:10.1007/JHEP09(2016)173 [arXiv:1606.04833 [hep-ex]].
- [204] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of Higgs bosons in the  $b\bar{b}b\bar{b}$  final

- state using proton–proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Rev. D **94**, no. 5, 052002 (2016) doi:10.1103/PhysRevD.94.052002 [arXiv:1606.04782 [hep-ex]].
- [205] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $W^\pm Z$  boson pair-production cross section in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS Detector,” Phys. Lett. B **762**, 1 (2016) doi:10.1016/j.physletb.2016.08.052 [arXiv:1606.04017 [hep-ex]].
- [206] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new resonances in events with one lepton and missing transverse momentum in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **762**, 334 (2016) doi:10.1016/j.physletb.2016.09.040 [arXiv:1606.03977 [hep-ex]].
- [207] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for top squarks in final states with one isolated lepton, jets, and missing transverse momentum in  $\sqrt{s} = 13$  TeV  $pp$  collisions with the ATLAS detector,” Phys. Rev. D **94**, no. 5, 052009 (2016) doi:10.1103/PhysRevD.94.052009 [arXiv:1606.03903 [hep-ex]].
- [208] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for resonances in diphoton events at  $\sqrt{s}=13$  TeV with the ATLAS detector,” JHEP **1609**, 001 (2016) doi:10.1007/JHEP09(2016)001 [arXiv:1606.03833 [hep-ex]].
- [209] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $t\bar{t}$  production cross-section using  $e\mu$  events with b-tagged jets in  $pp$  collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector,” Phys. Lett. B **761**, 136 (2016) doi:10.1016/j.physletb.2016.08.019 [arXiv:1606.02699 [hep-ex]].
- [210] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the Inelastic Proton-Proton Cross Section at  $\sqrt{s} = 13$  TeV with the ATLAS Detector at the LHC,” Phys. Rev. Lett. **117**, no. 18, 182002 (2016) doi:10.1103/PhysRevLett.117.182002 [arXiv:1606.02625 [hep-ex]].
- [211] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS and CMS Collaborations], “Measurements of the Higgs boson production and decay rates and constraints on its couplings from a combined ATLAS and CMS analysis of the LHC  $pp$  collision data at  $\sqrt{s} = 7$  and 8 TeV,” JHEP **1608**, 045 (2016) doi:10.1007/JHEP08(2016)045 [arXiv:1606.02266 [hep-ex]].
- [212] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for TeV-scale gravity signatures in high-mass final states with leptons and jets with the ATLAS detector at  $\sqrt{s} = 13$  TeV,” Phys. Lett. B **760**, 520 (2016) doi:10.1016/j.physletb.2016.07.030 [arXiv:1606.02265 [hep-ex]].
- [213] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson produced by vector-boson fusion and decaying to bottom quarks in  $\sqrt{s} = 8$  TeV  $pp$  collisions with the ATLAS detector,” JHEP **1611**, 112 (2016) doi:10.1007/JHEP11(2016)112 [arXiv:1606.02181 [hep-ex]].
- [214] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top quark mass in the  $t\bar{t} \rightarrow$  dilepton channel from  $\sqrt{s} = 8$  TeV ATLAS data,” Phys. Lett. B **761**, 350 (2016) doi:10.1016/j.physletb.2016.08.042 [arXiv:1606.02179 [hep-ex]].
- [215] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the photon identification efficiencies with the ATLAS detector using LHC Run-1 data,” Eur. Phys. J. C **76**, no. 12, 666 (2016) doi:10.1140/epjc/s10052-016-4507-9 [arXiv:1606.01813 [hep-ex]].
- [216] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the double-differential high-mass Drell–Yan cross section in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1608**, 009 (2016) doi:10.1007/JHEP08(2016)009 [arXiv:1606.01736 [hep-ex]].
- [217] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Charged-particle distributions at low transverse momentum in  $\sqrt{s} = 13$  TeV  $pp$  interactions measured with the ATLAS detector at the LHC,” Eur. Phys. J. C **76**, no. 9, 502 (2016) doi:10.1140/epjc/s10052-016-4335-y [arXiv:1606.01133 [hep-ex]].
- [218] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the angular coefficients in  $Z$ -boson events using electron and muon pairs from data taken at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1608**, 159 (2016) doi:10.1007/JHEP08(2016)159 [arXiv:1606.00689 [hep-ex]].
- [219] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of gluinos decaying via stop and sbottom in events with  $b$ -jets and large missing transverse momentum in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Rev. D **94**, no. 3, 032003 (2016) doi:10.1103/PhysRevD.94.032003 [arXiv:1605.09318 [hep-ex]].
- [220] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the relative width difference of the  $B^0$ - $\bar{B}^0$  system with the ATLAS detector,” JHEP **1606**, 081 (2016) doi:10.1007/JHEP06(2016)081 [arXiv:1605.07485 [hep-ex]].
- [221] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Transverse momentum, rapidity, and centrality dependence of inclusive charged-particle production in  $\sqrt{s_{NN}} = 5.02$  TeV  $p + \text{Pb}$  collisions measured by the ATLAS experiment,” Phys. Lett. B **763**, 313 (2016) doi:10.1016/j.physletb.2016.10.053 [arXiv:1605.06436 [hep-ex]].
- [222] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for scalar leptoquarks in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS experiment,” New J. Phys. **18**, no. 9, 093016 (2016) doi:10.1088/1367-2630/18/9/093016 [arXiv:1605.06035 [hep-ex]].
- [223] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for gluinos in events with an isolated lepton, jets and missing transverse momentum at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Eur. Phys. J. C **76**, no. 10, 565 (2016) doi:10.1140/epjc/s10052-016-4397-x [arXiv:1605.04285 [hep-ex]].
- [224] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for squarks and gluinos in final states with jets and missing transverse momentum at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Eur. Phys. J. C **76**, no. 7, 392 (2016) doi:10.1140/epjc/s10052-016-4184-8 [arXiv:1605.03814 [hep-ex]].
- [225] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive isolated prompt photon cross section in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1608**, 005 (2016) doi:10.1007/JHEP08(2016)005 [arXiv:1605.03495 [hep-ex]].
- [226] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in final states with an energetic

- jet and large missing transverse momentum in  $pp$  collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector,” Phys. Rev. D **94**, no. 3, 032005 (2016) doi:10.1103/PhysRevD.94.032005 [arXiv:1604.07773 [hep-ex]].
- [227] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for lepton-flavour-violating decays of the Higgs and  $Z$  bosons with the ATLAS detector,” Eur. Phys. J. C **77**, no. 2, 70 (2017) doi:10.1140/epjc/s10052-017-4624-0 [arXiv:1604.07730 [hep-ex]].
- [228] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of the charge asymmetry in top-quark pair production in the dilepton final state at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. D **94**, no. 3, 032006 (2016) doi:10.1103/PhysRevD.94.032006 [arXiv:1604.05538 [hep-ex]].
- [229] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of  $Z\gamma$  and  $Z\gamma\gamma$  production in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. D **93**, no. 11, 112002 (2016) doi:10.1103/PhysRevD.93.112002 [arXiv:1604.05232 [hep-ex]].
- [230] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for metastable heavy charged particles with large ionization energy loss in  $pp$  collisions at  $\sqrt{s} = 13$  TeV using the ATLAS experiment,” Phys. Rev. D **93**, no. 11, 112015 (2016) doi:10.1103/PhysRevD.93.112015 [arXiv:1604.04520 [hep-ex]].
- [231] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of the rare decays of  $B_s^0$  and  $B^0$  into muon pairs from data collected during the LHC Run 1 with the ATLAS detector,” Eur. Phys. J. C **76**, no. 9, 513 (2016) doi:10.1140/epjc/s10052-016-4338-8 [arXiv:1604.04263 [hep-ex]].
- [232] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson decaying into  $b\bar{b}$  produced in association with top quarks decaying hadronically in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1605**, 160 (2016) doi:10.1007/JHEP05(2016)160 [arXiv:1604.03812 [hep-ex]].
- [233] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of fiducial differential cross sections of gluon-fusion production of Higgs bosons decaying to  $WW^* \rightarrow e\nu\mu\nu$  with the ATLAS detector at  $\sqrt{s} = 8$  TeV,” JHEP **1608**, 104 (2016) doi:10.1007/JHEP08(2016)104 [arXiv:1604.02997 [hep-ex]].
- [234] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in events with a photon and missing transverse momentum in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” JHEP **1606**, 059 (2016) doi:10.1007/JHEP06(2016)059 [arXiv:1604.01306 [hep-ex]].
- [235] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $W^\pm$  and  $Z$ -boson production cross sections in  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **759**, 601 (2016) doi:10.1016/j.physletb.2016.06.023 [arXiv:1603.09222 [hep-ex]].
- [236] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for charged Higgs bosons produced in association with a top quark and decaying via  $H^\pm \rightarrow \tau\nu$  using  $pp$  collision data recorded at  $\sqrt{s} = 13$  TeV by the ATLAS detector,” Phys. Lett. B **759**, 555 (2016) doi:10.1016/j.physletb.2016.06.017 [arXiv:1603.09203 [hep-ex]].
- [237] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Beam-induced and cosmic-ray backgrounds observed in the ATLAS detector during the LHC 2012 proton-proton running period,” JINST **11**, no. 05, P05013 (2016) doi:10.1088/1748-0221/11/05/P05013 [arXiv:1603.09202 [hep-ex]].
- [238] M. Aaboud, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for resonances in the mass distribution of jet pairs with one or two jets identified as  $b$ -jets in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **759**, 229 (2016) doi:10.1016/j.physletb.2016.05.064 [arXiv:1603.08791 [hep-ex]].
- [239] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Muon reconstruction performance of the ATLAS detector in proton-proton collision data at  $\sqrt{s} = 13$  TeV,” Eur. Phys. J. C **76**, no. 5, 292 (2016) doi:10.1140/epjc/s10052-016-4120-y [arXiv:1603.05598 [hep-ex]].
- [240] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Identification of high transverse momentum top quarks in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1606**, 093 (2016) doi:10.1007/JHEP06(2016)093 [arXiv:1603.03127 [hep-ex]].
- [241] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Topological cell clustering in the ATLAS calorimeters and its performance in LHC Run 1,” Eur. Phys. J. C **77**, 490 (2017) doi:10.1140/epjc/s10052-017-5004-5 [arXiv:1603.02934 [hep-ex]].
- [242] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Charged-particle distributions in  $pp$  interactions at  $\sqrt{s} = 8$  TeV measured with the ATLAS detector,” Eur. Phys. J. C **76**, no. 7, 403 (2016) doi:10.1140/epjc/s10052-016-4203-9 [arXiv:1603.02439 [hep-ex]].
- [243] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of  $W^\pm Z$  production cross sections in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector and limits on anomalous gauge boson self-couplings,” Phys. Rev. D **93**, no. 9, 092004 (2016) doi:10.1103/PhysRevD.93.092004 [arXiv:1603.02151 [hep-ex]].
- [244] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of total and differential  $W^+W^-$  production cross sections in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector and limits on anomalous triple-gauge-boson couplings,” JHEP **1609**, 029 (2016) doi:10.1007/JHEP09(2016)029 [arXiv:1603.01702 [hep-ex]].
- [245] М. В. Чижов, “Неутринни осцилации – какво е това? (Нобелови награди 2015),” Природа, книжка **1**, 12-17 (2016).
- [246] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry at  $\sqrt{s} = 13$  TeV in final states with jets and two same-sign leptons or three leptons with the ATLAS detector,” Eur. Phys. J. C **76**, no. 5, 259 (2016) doi:10.1140/epjc/s10052-016-4095-8 [arXiv:1602.09058 [hep-ex]].
- [247] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of event-shape observables in  $Z \rightarrow \ell^+\ell^-$  events in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector at the LHC,” Eur. Phys. J. C **76**, no. 7, 375 (2016) doi:10.1140/epjc/s10052-016-4176-8 [arXiv:1602.08980 [hep-ex]].
- [248] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in final states with large jet

- multiplicities and missing transverse momentum with ATLAS using  $\sqrt{s} = 13$  TeV proton-proton collisions,” Phys. Lett. B **757**, 334 (2016) doi:10.1016/j.physletb.2016.04.005 [arXiv:1602.06194 [hep-ex]].
- [249] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for single production of a vector-like quark via a heavy gluon in the  $4b$  final state with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 8$  TeV,” Phys. Lett. B **758**, 249 (2016) doi:10.1016/j.physletb.2016.04.061 [arXiv:1602.06034 [hep-ex]].
- [250] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for single production of vector-like quarks decaying into  $Wb$  in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Eur. Phys. J. C **76**, no. 8, 442 (2016) doi:10.1140/epjc/s10052-016-4281-8 [arXiv:1602.05606 [hep-ex]].
- [251] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Test of CP Invariance in vector-boson fusion production of the Higgs boson using the Optimal Observable method in the ditau decay channel with the ATLAS detector,” Eur. Phys. J. C **76**, no. 12, 658 (2016) doi:10.1140/epjc/s10052-016-4499-5 [arXiv:1602.04516 [hep-ex]].
- [252] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Charged-particle distributions in  $\sqrt{s} = 13$  TeV  $pp$  interactions measured with the ATLAS detector at the LHC,” Phys. Lett. B **758**, 67 (2016) doi:10.1016/j.physletb.2016.04.050 [arXiv:1602.01633 [hep-ex]].
- [253] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the charged-particle multiplicity inside jets from  $\sqrt{s} = 8$  TeV  $pp$  collisions with the ATLAS detector,” Eur. Phys. J. C **76**, no. 6, 322 (2016) doi:10.1140/epjc/s10052-016-4126-5 [arXiv:1602.00988 [hep-ex]].
- [254] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for top squarks with R-parity-violating decays to all-hadronic final states with the ATLAS detector in  $\sqrt{s} = 8$  TeV proton-proton collisions,” JHEP **1606**, 067 (2016) doi:10.1007/JHEP06(2016)067 [arXiv:1601.07453 [hep-ex]].
- [255] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for an excited muon decaying to a muon and two jets in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” New J. Phys. **18**, no. 7, 073021 (2016) doi:10.1088/1367-2630/18/7/073021 [arXiv:1601.05627 [hep-ex]].
- [256] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Probing lepton flavour violation via neutrinoless  $\tau \rightarrow 3\mu$  decays with the ATLAS detector,” Eur. Phys. J. C **76**, no. 5, 232 (2016) doi:10.1140/epjc/s10052-016-4041-9 [arXiv:1601.03567 [hep-ex]].
- [257] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the CP-violating phase  $\phi_s$  and the  $B_s^0$  meson decay width difference with  $B_s^0 \rightarrow J/\psi\phi$  decays in ATLAS,” JHEP **1608**, 147 (2016) doi:10.1007/JHEP08(2016)147 [arXiv:1601.03297 [hep-ex]].
- [258] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the charge asymmetry in highly boosted top-quark pair production in  $\sqrt{s} = 8$  TeV  $pp$  collision data collected by the ATLAS experiment,” Phys. Lett. B **756**, 52 (2016) doi:10.1016/j.physletb.2016.02.055 [arXiv:1512.06092 [hep-ex]].
- [259] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Reconstruction of hadronic decay products of tau leptons with the ATLAS experiment,” Eur. Phys. J. C **76**, no. 5, 295 (2016) doi:10.1140/epjc/s10052-016-4110-0 [arXiv:1512.05955 [hep-ex]].
- [260] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena with photon+jet events in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” JHEP **1603**, 041 (2016) doi:10.1007/JHEP03(2016)041 [arXiv:1512.05910 [hep-ex]].
- [261] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $ZZ$  Production Cross Section in  $pp$  Collisions at  $\sqrt{s} = 13$  TeV with the ATLAS Detector,” Phys. Rev. Lett. **116**, no. 10, 101801 (2016) doi:10.1103/PhysRevLett.116.101801 [arXiv:1512.05314 [hep-ex]].
- [262] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Combination of searches for  $WW$ ,  $WZ$ , and  $ZZ$  resonances in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Lett. B **755**, 285 (2016) doi:10.1016/j.physletb.2016.02.015 [arXiv:1512.05099 [hep-ex]].
- [263] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for charged Higgs bosons in the  $H^\pm \rightarrow tb$  decay channel in  $pp$  collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” JHEP **1603**, 127 (2016) doi:10.1007/JHEP03(2016)127 [arXiv:1512.03704 [hep-ex]].
- [264] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the differential cross-sections of prompt and non-prompt production of  $J/\psi$  and  $\psi(2S)$  in  $pp$  collisions at  $\sqrt{s} = 7$  and 8 TeV with the ATLAS detector,” Eur. Phys. J. C **76**, no. 5, 283 (2016) doi:10.1140/epjc/s10052-016-4050-8 [arXiv:1512.03657 [hep-ex]].
- [265] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $D^{*\pm}$ ,  $D^\pm$  and  $D_s^\pm$  meson production cross sections in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Nucl. Phys. B **907**, 717 (2016) doi:10.1016/j.nuclphysb.2016.04.032 [arXiv:1512.02913 [hep-ex]].
- [266] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for strong gravity in multijet final states produced in  $pp$  collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector at the LHC,” JHEP **1603**, 026 (2016) doi:10.1007/JHEP03(2016)026 [arXiv:1512.02586 [hep-ex]].
- [267] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the transverse momentum and  $\phi_\eta^*$  distributions of Drell–Yan lepton pairs in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Eur. Phys. J. C **76**, no. 5, 291 (2016) doi:10.1140/epjc/s10052-016-4070-4 [arXiv:1512.02192 [hep-ex]].
- [268] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in dijet mass and angular distributions from  $pp$  collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector,” Phys. Lett. B **754**, 302 (2016) doi:10.1016/j.physletb.2016.01.032 [arXiv:1512.01530 [hep-ex]].
- [269] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of  $b$ -Jet Identification in the ATLAS Experiment,” JINST **11**, no. 04, P04008 (2016) doi:10.1088/1748-0221/11/04/P04008 [arXiv:1512.01094 [hep-ex]].

- [270] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the dependence of transverse energy production at large pseudorapidity on the hard-scattering kinematics of proton-proton collisions at  $\sqrt{s} = 2.76$  TeV with ATLAS,” *Phys. Lett. B* **756**, 10 (2016) doi:10.1016/j.physletb.2016.02.056 [arXiv:1512.00197 [hep-ex]].
- [271] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson produced in association with a vector boson and decaying into a tau pair in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Rev. D* **93**, no. 9, 092005 (2016) doi:10.1103/PhysRevD.93.092005 [arXiv:1511.08352 [hep-ex]].
- [272] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Evidence for single top-quark production in the  $s$ -channel in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector using the Matrix Element Method,” *Phys. Lett. B* **756**, 228 (2016) doi:10.1016/j.physletb.2016.03.017 [arXiv:1511.05980 [hep-ex]].
- [273] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for prompt lepton-jets in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1602**, 062 (2016) doi:10.1007/JHEP02(2016)062 [arXiv:1511.05542 [hep-ex]].
- [274] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of top-quark pair differential cross-sections in the lepton+jets channel in  $pp$  collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 10, 538 (2016) doi:10.1140/epjc/s10052-016-4366-4 [arXiv:1511.04716 [hep-ex]].
- [275] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Dijet production in  $\sqrt{s} = 7$  TeV  $pp$  collisions with large rapidity gaps at the ATLAS experiment,” *Phys. Lett. B* **754**, 214 (2016) doi:10.1016/j.physletb.2016.01.028 [arXiv:1511.00502 [hep-ex]].
- [276] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the correlations between the polar angles of leptons from top quark decays in the helicity basis at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *Phys. Rev. D* **93**, no. 1, 012002 (2016) doi:10.1103/PhysRevD.93.012002 [arXiv:1510.07478 [hep-ex]].
- [277] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter produced in association with a Higgs boson decaying to two bottom quarks in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Rev. D* **93**, no. 7, 072007 (2016) doi:10.1103/PhysRevD.93.072007 [arXiv:1510.06218 [hep-ex]].
- [278] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Identification of boosted, hadronically decaying W bosons and comparisons with ATLAS data taken at  $\sqrt{s} = 8$  TeV,” *Eur. Phys. J. C* **76**, no. 3, 154 (2016) doi:10.1140/epjc/s10052-016-3978-z [arXiv:1510.05821 [hep-ex]].
- [279] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of pile-up mitigation techniques for jets in  $pp$  collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 11, 581 (2016) doi:10.1140/epjc/s10052-016-4395-z [arXiv:1510.03823 [hep-ex]].
- [280] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the differential cross-section of highly boosted top quarks as a function of their transverse momentum in  $\sqrt{s} = 8$  TeV proton-proton collisions using the ATLAS detector,” *Phys. Rev. D* **93**, no. 3, 032009 (2016) doi:10.1103/PhysRevD.93.032009 [arXiv:1510.03818 [hep-ex]].
- [281] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for anomalous couplings in the  $Wtb$  vertex from the measurement of double differential angular decay rates of single top quarks produced in the  $t$ -channel with the ATLAS detector,” *JHEP* **1604**, 023 (2016) doi:10.1007/JHEP04(2016)023 [arXiv:1510.03764 [hep-ex]].
- [282] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production cross-section of a single top quark in association with a W boson at 8 TeV with the ATLAS experiment,” *JHEP* **1601**, 064 (2016) doi:10.1007/JHEP01(2016)064 [arXiv:1510.03752 [hep-ex]].
- [283] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the production of single vector-like and excited quarks in the  $Wt$  final state in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1602**, 110 (2016) doi:10.1007/JHEP02(2016)110 [arXiv:1510.02664 [hep-ex]].
- [284] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for magnetic monopoles and stable particles with high electric charges in 8 TeV  $pp$  collisions with the ATLAS detector,” *Phys. Rev. D* **93**, no. 5, 052009 (2016) doi:10.1103/PhysRevD.93.052009 [arXiv:1509.08059 [hep-ex]].
- [285] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of four-lepton production in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Lett. B* **753**, 552 (2016) doi:10.1016/j.physletb.2015.12.048 [arXiv:1509.07844 [hep-ex]].
- [286] M. V. Chizhov and V. A. Bednyakov, “Signatures of lower scale gauge coupling unification in the Standard Model due to extended Higgs sector,” *Phys. Atom. Nucl.* **79**, no. 5, 721 (2016) doi:10.1134/S1063778816050069 [arXiv:1509.07610 [hep-ph]].
- [287] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of four-jet differential cross sections in  $\sqrt{s} = 8$  TeV proton-proton collisions using the ATLAS detector,” *JHEP* **1512**, 105 (2015) doi:10.1007/JHEP12(2015)105 [arXiv:1509.07335 [hep-ex]].
- [288] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the electroweak production of supersymmetric particles in  $\sqrt{s} = 8$  TeV  $pp$  collisions with the ATLAS detector,” *Phys. Rev. D* **93**, no. 5, 052002 (2016) doi:10.1103/PhysRevD.93.052002 [arXiv:1509.07152 [hep-ex]].
- [289] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for flavour-changing neutral current top quark decays  $t \rightarrow Hq$  in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1512**, 061 (2015) doi:10.1007/JHEP12(2015)061 [arXiv:1509.06047 [hep-ex]].
- [290] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $t\bar{t}W$  and  $t\bar{t}Z$  production cross sections in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1511**, 172 (2015) doi:10.1007/JHEP11(2015)172 [arXiv:1509.05276 [hep-ex]].
- [291] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of jet charge in dijet events from  $\sqrt{s} = 8$  TeV  $pp$  collisions with the ATLAS detector,” *Phys. Rev. D* **93**, no. 5, 052003 (2016) doi:10.1103/PhysRevD.93.052003

- [arXiv:1509.05190 [hep-ex]].
- [292] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in events with at least three photons collected in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 4, 210 (2016) doi:10.1140/epjc/s10052-016-4034-8 [arXiv:1509.05051 [hep-ex]].
- [293] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct top squark pair production in final states with two tau leptons in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 2, 81 (2016) doi:10.1140/epjc/s10052-016-3897-z [arXiv:1509.04976 [hep-ex]].
- [294] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A new method to distinguish hadronically decaying boosted  $Z$  bosons from  $W$  bosons using the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 5, 238 (2016) doi:10.1140/epjc/s10052-016-4065-1 [arXiv:1509.04939 [hep-ex]].
- [295] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Observation of Long-Range Elliptic Azimuthal Anisotropies in  $\sqrt{s} = 13$  and 2.76 TeV  $pp$  Collisions with the ATLAS Detector,” *Phys. Rev. Lett.* **116**, no. 17, 172301 (2016) doi:10.1103/PhysRevLett.116.172301 [arXiv:1509.04776 [hep-ex]].
- [296] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Searches for Higgs boson pair production in the  $hh \rightarrow bb\tau\tau, \gamma\gamma WW^*, \gamma\gamma bb, bbbb$  channels with the ATLAS detector,” *Phys. Rev. D* **92**, 092004 (2015) doi:10.1103/PhysRevD.92.092004 [arXiv:1509.04670 [hep-ex]].
- [297] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of a new heavy quark that decays into a  $W$  boson and a light quark in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Rev. D* **92**, no. 11, 112007 (2015) doi:10.1103/PhysRevD.92.112007 [arXiv:1509.04261 [hep-ex]].
- [298] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the charge asymmetry in top-quark pair production in the lepton-plus-jets final state in  $pp$  collision data at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 2, 87 (2016) doi:10.1140/epjc/s10052-016-3910-6, 10.1140/epjc/s10052-017-5089-x [arXiv:1509.02358 [hep-ex]].
- [299] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Constraints on new phenomena via Higgs boson couplings and invisible decays with the ATLAS detector,” *JHEP* **1511**, 206 (2015) doi:10.1007/JHEP11(2015)206 [arXiv:1509.00672 [hep-ex]].
- [300] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a high-mass Higgs boson decaying to a  $W$  boson pair in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1601**, 032 (2016) doi:10.1007/JHEP01(2016)032 [arXiv:1509.00389 [hep-ex]].
- [301] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for single top-quark production via flavour-changing neutral currents at 8 TeV with the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 2, 55 (2016) doi:10.1140/epjc/s10052-016-3876-4 [arXiv:1509.00294 [hep-ex]].
- [302] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for invisible decays of a Higgs boson using vector-boson fusion in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1601**, 172 (2016) doi:10.1007/JHEP01(2016)172 [arXiv:1508.07869 [hep-ex]].
- [303] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of fiducial cross-sections for  $t\bar{t}$  production with one or two additional b-jets in  $pp$  collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 1, 11 (2016) doi:10.1140/epjc/s10052-015-3852-4 [arXiv:1508.06868 [hep-ex]].
- [304] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Summary of the ATLAS experiment’s sensitivity to supersymmetry after LHC Run 1 – interpreted in the phenomenological MSSM,” *JHEP* **1510**, 134 (2015) doi:10.1007/JHEP10(2015)134 [arXiv:1508.06608 [hep-ex]].
- [305] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for flavour-changing neutral current top-quark decays to  $qZ$  in  $pp$  collision data collected with the ATLAS detector at  $\sqrt{s} = 8$  TeV,” *Eur. Phys. J. C* **76**, no. 1, 12 (2016) doi:10.1140/epjc/s10052-015-3851-5 [arXiv:1508.05796 [hep-ex]].
- [306] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Searches for scalar leptoquarks in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 1, 5 (2016) doi:10.1140/epjc/s10052-015-3823-9 [arXiv:1508.04735 [hep-ex]].
- [307] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for lepton-flavour-violating  $H \rightarrow \mu\tau$  decays of the Higgs boson with the ATLAS detector,” *JHEP* **1511**, 211 (2015) doi:10.1007/JHEP11(2015)211 [arXiv:1508.03372 [hep-ex]].
- [308] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Constraints on non-Standard Model Higgs boson interactions in an effective Lagrangian using differential cross sections measured in the  $H \rightarrow \gamma\gamma$  decay channel at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Lett. B* **753**, 69 (2016) doi:10.1016/j.physletb.2015.11.071 [arXiv:1508.02507 [hep-ex]].
- [309] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of transverse energy-energy correlations in multi-jet events in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector and determination of the strong coupling constant  $\alpha_s(m_Z)$ ,” *Phys. Lett. B* **750**, 427 (2015) doi:10.1016/j.physletb.2015.09.050 [arXiv:1508.01579 [hep-ex]].
- [310] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the centrality dependence of the charged-particle pseudorapidity distribution in proton-lead collisions at  $\sqrt{s_{NN}} = 5.02$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 4, 199 (2016) doi:10.1140/epjc/s10052-016-4002-3 [arXiv:1508.00848 [hep-ex]].
- [311] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Determination of the ratio of  $b$ -quark fragmentation fractions  $f_s/f_d$  in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. Lett.* **115**, no. 26, 262001 (2015) doi:10.1103/PhysRevLett.115.262001 [arXiv:1507.08925 [hep-ex]].
- [312] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the branching ratio  $\Gamma(\Lambda_b^0 \rightarrow \psi(2S)\Lambda^0)/\Gamma(\Lambda_b^0 \rightarrow J/\psi\Lambda^0)$  with the ATLAS detector,” *Phys. Lett. B* **751**, 63 (2015) doi:10.1016/j.physletb.2015.10.009 [arXiv:1507.08202 [hep-ex]].
- [313] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of the  $B_c^+ \rightarrow J/\psi D_s^+$  and  $B_c^+ \rightarrow J/\psi D_s^{*+}$  decays with the

- ATLAS detector,” *Eur. Phys. J. C* **76**, no. 1, 4 (2016) doi:10.1140/epjc/s10052-015-3743-8 [arXiv:1507.07099 [hep-ex]].
- [314] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “ $Z$  boson production in  $p$ +Pb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV measured with the ATLAS detector,” *Phys. Rev. C* **92**, no. 4, 044915 (2015) doi:10.1103/PhysRevC.92.044915 [arXiv:1507.06232 [hep-ex]].
- [315] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for an additional, heavy Higgs boson in the  $H \rightarrow ZZ$  decay channel at  $\sqrt{s} = 8$  TeV in  $pp$  collision data with the ATLAS detector,” *Eur. Phys. J. C* **76**, no. 1, 45 (2016) doi:10.1140/epjc/s10052-015-3820-z [arXiv:1507.05930 [hep-ex]].
- [316] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Summary of the searches for squarks and gluinos using  $\sqrt{s} = 8$  TeV  $pp$  collisions with the ATLAS experiment at the LHC,” *JHEP* **1510**, 054 (2015) doi:10.1007/JHEP10(2015)054 [arXiv:1507.05525 [hep-ex]].
- [317] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for photonic signatures of gauge-mediated supersymmetry in 8 TeV  $pp$  collisions with the ATLAS detector,” *Phys. Rev. D* **92**, no. 7, 072001 (2015) doi:10.1103/PhysRevD.92.072001 [arXiv:1507.05493 [hep-ex]].
- [318] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of the Higgs boson production and decay rates and coupling strengths using  $pp$  collision data at  $\sqrt{s} = 7$  and 8 TeV in the ATLAS experiment,” *Eur. Phys. J. C* **76**, no. 1, 6 (2016) doi:10.1140/epjc/s10052-015-3769-y [arXiv:1507.04548 [hep-ex]].
- [319] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Determination of the top-quark pole mass using  $t\bar{t} + 1$ -jet events collected with the ATLAS experiment in 7 TeV  $pp$  collisions,” *JHEP* **1510**, 121 (2015) doi:10.1007/JHEP10(2015)121 [arXiv:1507.01769 [hep-ex]].
- [320] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production of neighbouring jets in lead-lead collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector,” *Phys. Lett. B* **751**, 376 (2015) doi:10.1016/j.physletb.2015.10.059 [arXiv:1506.08656 [hep-ex]].
- [321] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “ATLAS Run 1 searches for direct pair production of third-generation squarks at the Large Hadron Collider,” *Eur. Phys. J. C* **75**, no. 10, 510 (2015) Erratum: [*Eur. Phys. J. C* **76**, no. 3, 153 (2016)] doi:10.1140/epjc/s10052-015-3726-9, 10.1140/epjc/s10052-016-3935-x [arXiv:1506.08616 [hep-ex]].
- [322] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Centrality, rapidity and transverse momentum dependence of isolated prompt photon production in lead-lead collisions at  $\sqrt{s_{NN}} = 2.76$  TeV measured with the ATLAS detector,” *Phys. Rev. C* **93**, no. 3, 034914 (2016) doi:10.1103/PhysRevC.93.034914 [arXiv:1506.08552 [hep-ex]].
- [323] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of exclusive  $\gamma\gamma \rightarrow \ell^+\ell^-$  production in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **749**, 242 (2015) doi:10.1016/j.physletb.2015.07.069 [arXiv:1506.07098 [hep-ex]].
- [324] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of (W/Z)H production and Higgs boson couplings using  $H \rightarrow WW^*$  decays with the ATLAS detector,” *JHEP* **1508**, 137 (2015) doi:10.1007/JHEP08(2015)137 [arXiv:1506.06641 [hep-ex]].
- [325] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy Majorana neutrinos with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 8$  TeV,” *JHEP* **1507**, 162 (2015) doi:10.1007/JHEP07(2015)162 [arXiv:1506.06020 [hep-ex]].
- [326] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the associated production of the Higgs boson with a top quark pair in multilepton final states with the ATLAS detector,” *Phys. Lett. B* **749**, 519 (2015) doi:10.1016/j.physletb.2015.07.079 [arXiv:1506.05988 [hep-ex]].
- [327] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of the spin and parity of the Higgs boson in diboson decays with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 10, 476 (2015) Erratum: [*Eur. Phys. J. C* **76**, no. 3, 152 (2016)] doi:10.1140/epjc/s10052-015-3685-1, 10.1140/epjc/s10052-016-3934-y [arXiv:1506.05669 [hep-ex]].
- [328] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of colour flow with the jet pull angle in  $t\bar{t}$  events using the ATLAS detector at  $\sqrt{s} = 8$  TeV,” *Phys. Lett. B* **750**, 475 (2015) doi:10.1016/j.physletb.2015.09.051 [arXiv:1506.05629 [hep-ex]].
- [329] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Modelling  $Z \rightarrow \tau\tau$  processes in ATLAS with  $\tau$ -embedded  $Z \rightarrow \mu\mu$  data,” *JINST* **10**, no. 09, P09018 (2015) doi:10.1088/1748-0221/10/09/P09018, 10.1088/1748-0221/2015/9/P09018 [arXiv:1506.05623 [hep-ex]].
- [330] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for metastable heavy charged particles with large ionisation energy loss in  $pp$  collisions at  $\sqrt{s} = 8$  TeV using the ATLAS experiment,” *Eur. Phys. J. C* **75**, no. 9, 407 (2015) doi:10.1140/epjc/s10052-015-3609-0 [arXiv:1506.05332 [hep-ex]].
- [331] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of the top quark branching ratios into channels with leptons and quarks with the ATLAS detector,” *Phys. Rev. D* **92**, no. 7, 072005 (2015) doi:10.1103/PhysRevD.92.072005 [arXiv:1506.05074 [hep-ex]].
- [332] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for type-III Seesaw heavy leptons in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS Detector,” *Phys. Rev. D* **92**, no. 3, 032001 (2015) doi:10.1103/PhysRevD.92.032001 [arXiv:1506.01839 [hep-ex]].
- [333] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy lepton resonances decaying to a  $Z$  boson and a lepton in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1509**, 108 (2015) doi:10.1007/JHEP09(2015)108 [arXiv:1506.01291 [hep-ex]].
- [334] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Dark Matter in Events with Missing Transverse Momentum and a Higgs Boson Decaying to Two Photons in  $pp$  Collisions at  $\sqrt{s} = 8$  TeV with the ATLAS Detector,” *Phys. Rev. Lett.* **115**, no. 13, 131801 (2015) doi:10.1103/PhysRevLett.115.131801 [arXiv:1506.01081 [hep-ex]].
- [335] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for high-mass diboson resonances with boson-tagged jets in

- proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1512**, 055 (2015) doi:10.1007/JHEP12(2015)055 [arXiv:1506.00962 [hep-ex]].
- [336] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Higgs boson pair production in the  $b\bar{b}b\bar{b}$  final state from pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Eur. Phys. J. C **75**, no. 9, 412 (2015) doi:10.1140/epjc/s10052-015-3628-x [arXiv:1506.00285 [hep-ex]].
- [337] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of differential  $J/\psi$  production cross sections and forward-backward ratios in p + Pb collisions with the ATLAS detector,” Phys. Rev. C **92**, no. 3, 034904 (2015) doi:10.1103/PhysRevC.92.034904 [arXiv:1505.08141 [hep-ex]].
- [338] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new light gauge bosons in Higgs boson decays to four-lepton final states in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector at the LHC,” Phys. Rev. D **92**, no. 9, 092001 (2015) doi:10.1103/PhysRevD.92.092001 [arXiv:1505.07645 [hep-ex]].
- [339] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for  $t\bar{t}$  resonances using lepton-plus-jets events in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1508**, 148 (2015) doi:10.1007/JHEP08(2015)148 [arXiv:1505.07018 [hep-ex]].
- [340] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for production of vector-like quark pairs and of four top quarks in the lepton-plus-jets final state in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1508**, 105 (2015) doi:10.1007/JHEP08(2015)105 [arXiv:1505.04306 [hep-ex]].
- [341] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Higgs bosons decaying to  $aa$  in the  $\mu\mu\tau\tau$  final state in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS experiment,” Phys. Rev. D **92**, no. 5, 052002 (2015) doi:10.1103/PhysRevD.92.052002 [arXiv:1505.01609 [hep-ex]].
- [342] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of the Total and Differential Higgs Boson Production Cross Sections Combining the  $H \rightarrow \gamma\gamma$  and  $H \rightarrow ZZ^* \rightarrow 4\ell$  Decay Channels at  $\sqrt{s}=8$  TeV with the ATLAS Detector,” Phys. Rev. Lett. **115**, no. 9, 091801 (2015) doi:10.1103/PhysRevLett.115.091801 [arXiv:1504.05833 [hep-ex]].
- [343] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for high-mass diphoton resonances in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. D **92**, no. 3, 032004 (2015) doi:10.1103/PhysRevD.92.032004 [arXiv:1504.05511 [hep-ex]].
- [344] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for massive, long-lived particles using multitrack displaced vertices or displaced lepton pairs in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. D **92**, no. 7, 072004 (2015) doi:10.1103/PhysRevD.92.072004 [arXiv:1504.05162 [hep-ex]].
- [345] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Analysis of events with  $b$ -jets and a pair of leptons of the same charge in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1510**, 150 (2015) doi:10.1007/JHEP10(2015)150 [arXiv:1504.04605 [hep-ex]].
- [346] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of charged-particle spectra in Pb+Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector at the LHC,” JHEP **1509**, 050 (2015) doi:10.1007/JHEP09(2015)050 [arXiv:1504.04337 [hep-ex]].
- [347] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for invisible decays of the Higgs boson produced in association with a hadronically decaying vector boson in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Eur. Phys. J. C **75**, no. 7, 337 (2015) doi:10.1140/epjc/s10052-015-3551-1 [arXiv:1504.04324 [hep-ex]].
- [348] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top pair production cross section in 8 TeV proton-proton collisions using kinematic information in the lepton+jets final state with ATLAS,” Phys. Rev. D **91**, no. 11, 112013 (2015) doi:10.1103/PhysRevD.91.112013 [arXiv:1504.04251 [hep-ex]].
- [349] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy long-lived multi-charged particles in pp collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” Eur. Phys. J. C **75**, 362 (2015) doi:10.1140/epjc/s10052-015-3534-2 [arXiv:1504.04188 [hep-ex]].
- [350] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for long-lived, weakly interacting particles that decay to displaced hadronic jets in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. D **92**, no. 1, 012010 (2015) doi:10.1103/PhysRevD.92.012010 [arXiv:1504.03634 [hep-ex]].
- [351] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the correlation between flow harmonics of different order in lead-lead collisions at  $\sqrt{s_{NN}}=2.76$  TeV with the ATLAS detector,” Phys. Rev. C **92**, no. 3, 034903 (2015) doi:10.1103/PhysRevC.92.034903 [arXiv:1504.01289 [hep-ex]].
- [352] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for New Phenomena in Dijet Angular Distributions in Proton-Proton Collisions at  $\sqrt{s} = 8$  TeV Measured with the ATLAS Detector,” Phys. Rev. Lett. **114**, no. 22, 221802 (2015) doi:10.1103/PhysRevLett.114.221802 [arXiv:1504.00357 [hep-ex]].
- [353] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for low-scale gravity signatures in multi-jet final states with the ATLAS detector at  $\sqrt{s} = 8$  TeV,” JHEP **1507**, 032 (2015) doi:10.1007/JHEP07(2015)032 [arXiv:1503.08988 [hep-ex]].
- [354] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a new resonance decaying to a W or Z boson and a Higgs boson in the  $\ell\ell/\ell\nu/\nu\nu + b\bar{b}$  final states with the ATLAS detector,” Eur. Phys. J. C **75**, no. 6, 263 (2015) doi:10.1140/epjc/s10052-015-3474-x [arXiv:1503.08089 [hep-ex]].
- [355] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS and CMS Collaborations], “Combined Measurement of the Higgs Boson Mass in pp Collisions at  $\sqrt{s} = 7$  and 8 TeV with the ATLAS and CMS Experiments,” Phys. Rev. Lett. **114**, 191803 (2015) doi:10.1103/PhysRevLett.114.191803 [arXiv:1503.07589 [hep-ex]].
- [356] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top quark mass in the  $t\bar{t} \rightarrow$  lepton+jets and  $t\bar{t} \rightarrow$  dilepton channels using  $\sqrt{s} = 7$  TeV ATLAS data,” Eur. Phys. J. C **75**, no. 7, 330 (2015) doi:10.1140/epjc/s10052-



- 015-3544-0 [arXiv:1503.05427 [hep-ex]].
- [357] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for vector-like  $B$  quarks in events with one isolated lepton, missing transverse momentum and jets at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Rev. D* **91**, no. 11, 112011 (2015) doi:10.1103/PhysRevD.91.112011 [arXiv:1503.05425 [hep-ex]].
- [358] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson produced in association with top quarks and decaying into  $b\bar{b}$  in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 7, 349 (2015) doi:10.1140/epjc/s10052-015-3543-1 [arXiv:1503.05066 [hep-ex]].
- [359] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for production of  $WW/WZ$  resonances decaying to a lepton, neutrino and jets in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 5, 209 (2015) Erratum: [*Eur. Phys. J. C* **75**, 370 (2015)] doi:10.1140/epjc/s10052-015-3593-4, 10.1140/epjc/s10052-015-3425-6 [arXiv:1503.04677 [hep-ex]].
- [360] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a Heavy Neutral Particle Decaying to  $e\mu$ ,  $e\tau$ , or  $\mu\tau$  in pp Collisions at  $\sqrt{s} = 8$  TeV with the ATLAS Detector,” *Phys. Rev. Lett.* **115**, no. 3, 031801 (2015) doi:10.1103/PhysRevLett.115.031801 [arXiv:1503.04430 [hep-ex]].
- [361] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a Charged Higgs Boson Produced in the Vector-Boson Fusion Mode with Decay  $H^\pm \rightarrow W^\pm Z$  using pp Collisions at  $\sqrt{s} = 8$  TeV with the ATLAS Experiment,” *Phys. Rev. Lett.* **114**, no. 23, 231801 (2015) doi:10.1103/PhysRevLett.114.231801 [arXiv:1503.04233 [hep-ex]].
- [362] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the forward-backward asymmetry of electron and muon pair-production in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *JHEP* **1509**, 049 (2015) doi:10.1007/JHEP09(2015)049 [arXiv:1503.03709 [hep-ex]].
- [363] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Determination of spin and parity of the Higgs boson in the  $WW^* \rightarrow e\nu\mu\nu$  decay channel with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 5, 231 (2015) doi:10.1140/epjc/s10052-015-3436-3 [arXiv:1503.03643 [hep-ex]].
- [364] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in events containing a same-flavour opposite-sign dilepton pair, jets, and large missing transverse momentum in  $\sqrt{s} = 8$  TeV pp collisions with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 7, 318 (2015) Erratum: [*Eur. Phys. J. C* **75**, no. 10, 463 (2015)] doi:10.1140/epjc/s10052-015-3661-9, 10.1140/epjc/s10052-015-3518-2 [arXiv:1503.03290 [hep-ex]].
- [365] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Evidence of  $W\gamma\gamma$  Production in pp Collisions at  $\sqrt{s} = 8$  TeV and Limits on Anomalous Quartic Gauge Couplings with the ATLAS Detector,” *Phys. Rev. Lett.* **115**, no. 3, 031802 (2015) doi:10.1103/PhysRevLett.115.031802 [arXiv:1503.03243 [hep-ex]].
- [366] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Constraints on the off-shell Higgs boson signal strength in the high-mass ZZ and WW final states with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 7, 335 (2015) doi:10.1140/epjc/s10052-015-3542-2 [arXiv:1503.01060 [hep-ex]].
- [367] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Two-particle Bose-Einstein correlations in pp collisions at  $\sqrt{s} = 0.9$  and 7 TeV measured with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 10, 466 (2015) doi:10.1140/epjc/s10052-015-3644-x [arXiv:1502.07947 [hep-ex]].
- [368] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for high-mass resonances decaying to  $\tau^+\tau^-$  in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1507**, 157 (2015) doi:10.1007/JHEP07(2015)157 [arXiv:1502.07177 [hep-ex]].
- [369] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Differential top-antitop cross-section measurements as a function of observables constructed from final-state particles using pp collisions at  $\sqrt{s} = 7$  TeV in the ATLAS detector,” *JHEP* **1506**, 100 (2015) doi:10.1007/JHEP06(2015)100 [arXiv:1502.05923 [hep-ex]].
- [370] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for massive supersymmetric particles decaying to many jets using the ATLAS detector in pp collisions at  $\sqrt{s} = 8$  TeV,” *Phys. Rev. D* **91**, no. 11, 112016 (2015) Erratum: [*Phys. Rev. D* **93**, no. 3, 039901 (2016)] doi:10.1103/PhysRevD.93.039901, 10.1103/PhysRevD.91.112016 [arXiv:1502.05686 [hep-ex]].
- [371] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a CP-odd Higgs boson decaying to Zh in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Lett. B* **744**, 163 (2015) doi:10.1016/j.physletb.2015.03.054 [arXiv:1502.04478 [hep-ex]].
- [372] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in final states with an energetic jet and large missing transverse momentum in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 7, 299 (2015) Erratum: [*Eur. Phys. J. C* **75**, no. 9, 408 (2015)] doi:10.1140/epjc/s10052-015-3517-3, 10.1140/epjc/s10052-015-3639-7 [arXiv:1502.01518 [hep-ex]].
- [373] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Observation of top-quark pair production in association with a photon and measurement of the  $t\bar{t}\gamma$  production cross section in pp collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *Phys. Rev. D* **91**, no. 7, 072007 (2015) doi:10.1103/PhysRevD.91.072007 [arXiv:1502.00586 [hep-ex]].
- [374] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the charge asymmetry in dileptonic decays of top quark pairs in pp collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *JHEP* **1505**, 061 (2015) doi:10.1007/JHEP05(2015)061 [arXiv:1501.07383 [hep-ex]].
- [375] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct pair production of a chargino and a neutralino decaying to the 125 GeV Higgs boson in  $\sqrt{s} = 8$  TeV pp collisions with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 5, 208 (2015) doi:10.1140/epjc/s10052-015-3408-7 [arXiv:1501.07110 [hep-ex]].
- [376] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Evidence for the Higgs-boson Yukawa coupling to tau leptons with the ATLAS detector,” *JHEP* **1504**, 117 (2015) doi:10.1007/JHEP04(2015)117 [arXiv:1501.04943 [hep-ex]].

- [377] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair-produced long-lived neutral particles decaying in the ATLAS hadronic calorimeter in  $pp$  collisions at  $\sqrt{s} = 8$  TeV,” *Phys. Lett. B* **743**, 15 (2015) doi:10.1016/j.physletb.2015.02.015 [arXiv:1501.04020 [hep-ex]].
- [378] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for squarks and gluinos in events with isolated leptons, jets and missing transverse momentum at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1504**, 116 (2015) doi:10.1007/JHEP04(2015)116 [arXiv:1501.03555 [hep-ex]].
- [379] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Higgs and Z Boson Decays to  $J/\psi \gamma$  and  $\Upsilon(nS) \gamma$  with the ATLAS Detector,” *Phys. Rev. Lett.* **114**, no. 12, 121801 (2015) doi:10.1103/PhysRevLett.114.121801 [arXiv:1501.03276 [hep-ex]].
- [380] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Scalar Charm Quark Pair Production in  $pp$  Collisions at  $\sqrt{s} = 8$  TeV with the ATLAS Detector,” *Phys. Rev. Lett.* **114**, no. 16, 161801 (2015) doi:10.1103/PhysRevLett.114.161801 [arXiv:1501.01325 [hep-ex]].
- [381] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Identification and energy calibration of hadronically decaying tau leptons with the ATLAS experiment in  $pp$  collisions at  $\sqrt{s}=8$  TeV,” *Eur. Phys. J. C* **75**, no. 7, 303 (2015) doi:10.1140/epjc/s10052-015-3500-z [arXiv:1412.7086 [hep-ex]].
- [382] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for charged Higgs bosons decaying via  $H^\pm \rightarrow \tau^\pm \nu$  in fully hadronic final states using  $pp$  collision data at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1503**, 088 (2015) doi:10.1007/JHEP03(2015)088 [arXiv:1412.6663 [hep-ex]].
- [383] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Observation and measurements of the production of prompt and non-prompt  $J/\psi$  mesons in association with a Z boson in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 5, 229 (2015) doi:10.1140/epjc/s10052-015-3406-9 [arXiv:1412.6428 [hep-ex]].
- [384] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of Spin Correlation in Top-Antitop Quark Events and Search for Top Squark Pair Production in  $pp$  Collisions at  $\sqrt{s} = 8$  TeV Using the ATLAS Detector,” *Phys. Rev. Lett.* **114**, no. 14, 142001 (2015) doi:10.1103/PhysRevLett.114.142001 [arXiv:1412.4742 [hep-ex]].
- [385] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Centrality and rapidity dependence of inclusive jet production in  $\sqrt{s_{NN}} = 5.02$  TeV proton-lead collisions with the ATLAS detector,” *Phys. Lett. B* **748**, 392 (2015) doi:10.1016/j.physletb.2015.07.023 [arXiv:1412.4092 [hep-ex]].
- [386] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Observation and measurement of Higgs boson decays to  $WW^*$  with the ATLAS detector,” *Phys. Rev. D* **92**, no. 1, 012006 (2015) doi:10.1103/PhysRevD.92.012006 [arXiv:1412.2641 [hep-ex]].
- [387] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the transverse polarization of  $\Lambda$  and  $\bar{\Lambda}$  hyperons produced in proton-proton collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *Phys. Rev. D* **91**, no. 3, 032004 (2015) doi:10.1103/PhysRevD.91.032004 [arXiv:1412.1692 [hep-ex]].
- [388] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for anomalous production of prompt same-sign lepton pairs and pair-produced doubly charged Higgs bosons with  $\sqrt{s} = 8$  TeV  $pp$  collisions using the ATLAS detector,” *JHEP* **1503**, 041 (2015) doi:10.1007/JHEP03(2015)041 [arXiv:1412.0237 [hep-ex]].
- [389] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Searches for heavy long-lived charged particles with the ATLAS detector in proton-proton collisions at  $\sqrt{s} = 8$  TeV,” *JHEP* **1501**, 068 (2015) doi:10.1007/JHEP01(2015)068 [arXiv:1411.6795 [hep-ex]].
- [390] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in events with three or more charged leptons in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1508**, 138 (2015) doi:10.1007/JHEP08(2015)138 [arXiv:1411.2921 [hep-ex]].
- [391] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of the Nuclear Modification Factor for Jets in Pb+Pb Collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS Detector,” *Phys. Rev. Lett.* **114**, no. 7, 072302 (2015) doi:10.1103/PhysRevLett.114.072302 [arXiv:1411.2357 [hep-ex]].
- [392] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of three-jet production cross-sections in  $pp$  collisions at 7 TeV centre-of-mass energy using the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 5, 228 (2015) doi:10.1140/epjc/s10052-015-3363-3 [arXiv:1411.1855 [hep-ex]].
- [393] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in events with a photon and missing transverse momentum in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Rev. D* **91**, no. 1, 012008 (2015) Erratum: [*Phys. Rev. D* **92**, no. 5, 059903 (2015)] doi:10.1103/PhysRevD.92.059903, 10.1103/PhysRevD.91.012008 [arXiv:1411.1559 [hep-ex]].
- [394] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive jet cross-section in proton-proton collisions at  $\sqrt{s} = 7$  TeV using  $4.5 \text{ fb}^{-1}$  of data with the ATLAS detector,” *JHEP* **1502**, 153 (2015) Erratum: [*JHEP* **1509**, 141 (2015)] doi:10.1007/JHEP02(2015)153, 10.1007/JHEP09(2015)141 [arXiv:1410.8857 [hep-ex]].
- [395] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $WW + WZ$  cross section and limits on anomalous triple gauge couplings using final states with one lepton, missing transverse momentum, and two jets with the ATLAS detector at  $\sqrt{s} = 7$  TeV,” *JHEP* **1501**, 049 (2015) doi:10.1007/JHEP01(2015)049 [arXiv:1410.7238 [hep-ex]].
- [396] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for invisible particles produced in association with single-top-quarks in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 2, 79 (2015) doi:10.1140/epjc/s10052-014-3233-4 [arXiv:1410.5404 [hep-ex]].
- [397] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the  $X_b$  and other hidden-beauty states in the  $\pi^+ \pi^- \Upsilon(1S)$  channel at ATLAS,” *Phys. Lett. B* **740**, 199 (2015) doi:10.1016/j.physletb.2014.11.055 [arXiv:1410.4409 [hep-ex]].

- [398] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $W' \rightarrow t\bar{b}$  in the lepton plus jets final state in proton-proton collisions at a centre-of-mass energy of  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Lett. B* **743**, 235 (2015) doi:10.1016/j.physletb.2015.02.051 [arXiv:1410.4103 [hep-ex]].
- [399] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter in events with heavy quarks and missing transverse momentum in  $pp$  collisions with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 2, 92 (2015) doi:10.1140/epjc/s10052-015-3306-z [arXiv:1410.4031 [hep-ex]].
- [400] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $s$ -channel single top-quark production in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Lett. B* **740**, 118 (2015) doi:10.1016/j.physletb.2014.11.042 [arXiv:1410.0647 [hep-ex]].
- [401] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of the  $W$  production cross sections in association with jets with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 2, 82 (2015) doi:10.1140/epjc/s10052-015-3262-7 [arXiv:1409.8639 [hep-ex]].
- [402] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the  $b\bar{b}$  decay of the Standard Model Higgs boson in associated  $(W/Z)H$  production with the ATLAS detector,” *JHEP* **1501**, 069 (2015) doi:10.1007/JHEP01(2015)069 [arXiv:1409.6212 [hep-ex]].
- [403] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for resonant diboson production in the  $\ell\ell q\bar{q}$  final state in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **75**, 69 (2015) doi:10.1140/epjc/s10052-015-3261-8 [arXiv:1409.6190 [hep-ex]].
- [404] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for neutral Higgs bosons of the minimal supersymmetric standard model in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1411**, 056 (2014) doi:10.1007/JHEP11(2014)056 [arXiv:1409.6064 [hep-ex]].
- [405] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for nonpointing and delayed photons in the diphoton and missing transverse momentum final state in 8 TeV  $pp$  collisions at the LHC using the ATLAS detector,” *Phys. Rev. D* **90**, no. 11, 112005 (2014) doi:10.1103/PhysRevD.90.112005 [arXiv:1409.5542 [hep-ex]].
- [406] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair and single production of new heavy quarks that decay to a  $Z$  boson and a third-generation quark in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1411**, 104 (2014) doi:10.1007/JHEP11(2014)104 [arXiv:1409.5500 [hep-ex]].
- [407] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of distributions sensitive to the underlying event in inclusive  $Z$ -boson production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **74**, no. 12, 3195 (2014) doi:10.1140/epjc/s10052-014-3195-6 [arXiv:1409.3433 [hep-ex]].
- [408] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $H \rightarrow \gamma\gamma$  produced in association with top quarks and constraints on the Yukawa coupling between the top quark and the Higgs boson using data taken at 7 TeV and 8 TeV with the ATLAS detector,” *Phys. Lett. B* **740**, 222 (2015) doi:10.1016/j.physletb.2014.11.049 [arXiv:1409.3122 [hep-ex]].
- [409] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of long-range pseudorapidity correlations and azimuthal harmonics in  $\sqrt{s_{NN}} = 5.02$  TeV proton-lead collisions with the ATLAS detector,” *Phys. Rev. C* **90**, no. 4, 044906 (2014) doi:10.1103/PhysRevC.90.044906 [arXiv:1409.1792 [hep-ex]].
- [410] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top-quark mass in the fully hadronic decay channel from ATLAS data at  $\sqrt{s} = 7$  TeV,” *Eur. Phys. J. C* **75**, no. 4, 158 (2015) doi:10.1140/epjc/s10052-015-3373-1 [arXiv:1409.0832 [hep-ex]].
- [411] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for long-lived neutral particles decaying into lepton jets in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *JHEP* **1411**, 088 (2014) doi:10.1007/JHEP11(2014)088 [arXiv:1409.0746 [hep-ex]].
- [412] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of Higgs boson production in the diphoton decay channel in  $pp$  collisions at center-of-mass energies of 7 and 8 TeV with the ATLAS detector,” *Phys. Rev. D* **90**, no. 11, 112015 (2014) doi:10.1103/PhysRevD.90.112015 [arXiv:1408.7084 [hep-ex]].
- [413] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A measurement of the ratio of the production cross sections for  $W$  and  $Z$  bosons in association with jets with the ATLAS detector,” *Eur. Phys. J. C* **74**, no. 12, 3168 (2014) doi:10.1140/epjc/s10052-014-3168-9 [arXiv:1408.6510 [hep-ex]].
- [414] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the total cross section from elastic scattering in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Nucl. Phys. B* **889**, 486 (2014) doi:10.1016/j.nuclphysb.2014.10.019 [arXiv:1408.5778 [hep-ex]].
- [415] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the lepton flavor violating decay  $Z \rightarrow e\mu$  in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” *Phys. Rev. D* **90**, no. 7, 072010 (2014) doi:10.1103/PhysRevD.90.072010 [arXiv:1408.5774 [hep-ex]].
- [416] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of Higgs boson production and couplings in the four-lepton channel in  $pp$  collisions at center-of-mass energies of 7 and 8 TeV with the ATLAS detector,” *Phys. Rev. D* **91**, no. 1, 012006 (2015) doi:10.1103/PhysRevD.91.012006 [arXiv:1408.5191 [hep-ex]].
- [417] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production and lepton charge asymmetry of  $W$  bosons in Pb+Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **75**, no. 1, 23 (2015) doi:10.1140/epjc/s10052-014-3231-6 [arXiv:1408.4674 [hep-ex]].
- [418] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of flow harmonics with multi-particle cumulants in Pb+Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **74**, no. 11, 3157 (2014) doi:10.1140/epjc/s10052-014-3157-z [arXiv:1408.4342 [hep-ex]].
- [419] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Fiducial and differential cross sections of Higgs boson production

- measured in the four-lepton decay channel in  $pp$  collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector,” Phys. Lett. B **738**, 234 (2014) doi:10.1016/j.physletb.2014.09.054 [arXiv:1408.3226 [hep-ex]].
- [420] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of the ATLAS muon trigger in  $pp$  collisions at  $\sqrt{s} = 8$  TeV,” Eur. Phys. J. C **75**, 120 (2015) doi:10.1140/epjc/s10052-015-3325-9 [arXiv:1408.3179 [hep-ex]].
- [421] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $W' \rightarrow tb \rightarrow qqbb$  decays in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Eur. Phys. J. C **75**, no. 4, 165 (2015) doi:10.1140/epjc/s10052-015-3372-2 [arXiv:1408.0886 [hep-ex]].
- [422] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new resonances in  $W\gamma$  and  $Z\gamma$  final states in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Lett. B **738**, 428 (2014) doi:10.1016/j.physletb.2014.10.002 [arXiv:1407.8150 [hep-ex]].
- [423] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new particles in events with one lepton and missing transverse momentum in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1409**, 037 (2014) doi:10.1007/JHEP09(2014)037 [arXiv:1407.7494 [hep-ex]].
- [424] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Scalar Diphoton Resonances in the Mass Range 65 – 600 GeV with the ATLAS Detector in  $pp$  Collision Data at  $\sqrt{s} = 8$  TeV,” Phys. Rev. Lett. **113**, no. 17, 171801 (2014) doi:10.1103/PhysRevLett.113.171801 [arXiv:1407.6583 [hep-ex]].
- [425] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of jet vetoes and azimuthal decorrelations in dijet events produced in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” Eur. Phys. J. C **74**, no. 11, 3117 (2014) doi:10.1140/epjc/s10052-014-3117-7 [arXiv:1407.5756 [hep-ex]].
- [426] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production cross-section of  $\psi(2S) \rightarrow J/\psi(\rightarrow \mu^+\mu^-)\pi^+\pi^-$  in  $pp$  collisions at  $\sqrt{s} = 7$  TeV at ATLAS,” JHEP **1409**, 079 (2014) doi:10.1007/JHEP09(2014)079 [arXiv:1407.5532 [hep-ex]].
- [427] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Electron and photon energy calibration with the ATLAS detector using LHC Run 1 data,” Eur. Phys. J. C **74**, no. 10, 3071 (2014) doi:10.1140/epjc/s10052-014-3071-4 [arXiv:1407.5063 [hep-ex]].
- [428] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of spin correlation in top-antitop quark events from proton-proton collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” Phys. Rev. D **90**, no. 11, 112016 (2014) doi:10.1103/PhysRevD.90.112016 [arXiv:1407.4314 [hep-ex]].
- [429] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of fiducial and differential cross sections for Higgs boson production in the diphoton decay channel at  $\sqrt{s} = 8$  TeV with ATLAS,” JHEP **1409**, 112 (2014) doi:10.1007/JHEP09(2014)112 [arXiv:1407.4222 [hep-ex]].
- [430] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the muon reconstruction performance of the ATLAS detector using 2011 and 2012 LHC proton-proton collision data,” Eur. Phys. J. C **74**, no. 11, 3130 (2014) doi:10.1140/epjc/s10052-014-3130-x [arXiv:1407.3935 [hep-ex]].
- [431] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of differential production cross-sections for a  $Z$  boson in association with  $b$ -jets in 7 TeV proton-proton collisions with the ATLAS detector,” JHEP **1410**, 141 (2014) doi:10.1007/JHEP10(2014)141 [arXiv:1407.3643 [hep-ex]].
- [432] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for contact interactions and large extra dimensions in the dilepton channel using proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Eur. Phys. J. C **74**, no. 12, 3134 (2014) doi:10.1140/epjc/s10052-014-3134-6 [arXiv:1407.2410 [hep-ex]].
- [433] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Flavor tagged time-dependent angular analysis of the  $B_s \rightarrow J/\psi\phi$  decay and extraction of  $\Delta\Gamma$ s and the weak phase  $\phi_s$  in ATLAS,” Phys. Rev. D **90**, no. 5, 052007 (2014) doi:10.1103/PhysRevD.90.052007 [arXiv:1407.1796 [hep-ex]].
- [434] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in the dijet mass distribution using  $p-p$  collision data at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. D **91**, no. 5, 052007 (2015) doi:10.1103/PhysRevD.91.052007 [arXiv:1407.1376 [hep-ex]].
- [435] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Observation of an Excited  $B_c^\pm$  Meson State with the ATLAS Detector,” Phys. Rev. Lett. **113**, no. 21, 212004 (2014) doi:10.1103/PhysRevLett.113.212004 [arXiv:1407.1032 [hep-ex]].
- [436] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $t\bar{t}$  production cross-section as a function of jet multiplicity and jet transverse momentum in 7 TeV proton-proton collisions with the ATLAS detector,” JHEP **1501**, 020 (2015) doi:10.1007/JHEP01(2015)020 [arXiv:1407.0891 [hep-ex]].
- [437] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the cross-section of high transverse momentum vector bosons reconstructed as single jets and studies of jet substructure in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” New J. Phys. **16**, no. 11, 113013 (2014) doi:10.1088/1367-2630/16/11/113013 [arXiv:1407.0800 [hep-ex]].
- [438] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair-produced third-generation squarks decaying via charm quarks or in compressed supersymmetric scenarios in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. D **90**, no. 5, 052008 (2014) doi:10.1103/PhysRevD.90.052008 [arXiv:1407.0608 [hep-ex]].
- [439] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in events with large missing transverse momentum, jets, and at least one tau lepton in 20 fb<sup>-1</sup> of  $\sqrt{s} = 8$  TeV proton-proton collision data with the ATLAS detector,” JHEP **1409**, 103 (2014) doi:10.1007/JHEP09(2014)103 [arXiv:1407.0603 [hep-ex]].
- [440] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for strong production of supersymmetric particles in final states with missing transverse momentum and at least three  $b$ -jets at  $\sqrt{s} = 8$  TeV proton-proton collisions with the ATLAS detector,” JHEP **1410**, 024 (2014) doi:10.1007/JHEP10(2014)024 [arXiv:1407.0600 [hep-ex]].
- [441] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for top squark pair production in final states with one

- isolated lepton, jets, and missing transverse momentum in  $\sqrt{s} = 8$  TeV  $pp$  collisions with the ATLAS detector,” JHEP **1411**, 118 (2014) doi:10.1007/JHEP11(2014)118 [arXiv:1407.0583 [hep-ex]].
- [442] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Simultaneous measurements of the  $t\bar{t}$ ,  $W^+W^-$ , and  $Z/\gamma^* \rightarrow \tau\tau$  production cross-sections in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Rev. D **91**, no. 5, 052005 (2015) doi:10.1103/PhysRevD.91.052005 [arXiv:1407.0573 [hep-ex]].
- [443] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of normalized differential cross sections for  $t\bar{t}$  production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” Phys. Rev. D **90**, no. 7, 072004 (2014) doi:10.1103/PhysRevD.90.072004 [arXiv:1407.0371 [hep-ex]].
- [444] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the direct production of charginos, neutralinos and staus in final states with at least two hadronically decaying taus and missing transverse momentum in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1410**, 096 (2014) doi:10.1007/JHEP10(2014)096 [arXiv:1407.0350 [hep-ex]].
- [445] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Comprehensive measurements of  $t$ -channel single top-quark production cross sections at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Rev. D **90**, no. 11, 112006 (2014) doi:10.1103/PhysRevD.90.112006 [arXiv:1406.7844 [hep-ex]].
- [446] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A neural network clustering algorithm for the ATLAS silicon pixel detector,” JINST **9**, P09009 (2014) doi:10.1088/1748-0221/9/09/P09009 [arXiv:1406.7690 [hep-ex]].
- [447] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson decay to  $\mu^+\mu^-$  with the ATLAS detector,” Phys. Lett. B **738**, 68 (2014) doi:10.1016/j.physletb.2014.09.008 [arXiv:1406.7663 [hep-ex]].
- [448] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $t\bar{t}$  production cross-section using  $e\mu$  events with  $b$ -tagged jets in  $pp$  collisions at  $\sqrt{s} = 7$  and 8 TeV with the ATLAS detector,” Eur. Phys. J. C **74**, no. 10, 3109 (2014) Addendum: [Eur. Phys. J. C **76**, no. 11, 642 (2016)] doi:10.1140/epjc/s10052-016-4501-2, 10.1140/epjc/s10052-014-3109-7 [arXiv:1406.5375 [hep-ex]].
- [449] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search For Higgs Boson Pair Production in the  $\gamma\gamma b\bar{b}$  Final State using  $pp$  Collision Data at  $\sqrt{s} = 8$  TeV from the ATLAS Detector,” Phys. Rev. Lett. **114**, no. 8, 081802 (2015) doi:10.1103/PhysRevLett.114.081802 [arXiv:1406.5053 [hep-ex]].
- [450] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $WZ$  resonances in the fully leptonic channel using  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Lett. B **737**, 223 (2014) doi:10.1016/j.physletb.2014.08.039 [arXiv:1406.4456 [hep-ex]].
- [451] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the Higgs boson mass from the  $H \rightarrow \gamma\gamma$  and  $H \rightarrow ZZ^* \rightarrow 4\ell$  channels with the ATLAS detector using 25  $\text{fb}^{-1}$  of  $pp$  collision data,” Phys. Rev. D **90**, no. 5, 052004 (2014) doi:10.1103/PhysRevD.90.052004 [arXiv:1406.3827 [hep-ex]].
- [452] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $Z/\gamma^*$  boson transverse momentum distribution in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” JHEP **1409**, 145 (2014) doi:10.1007/JHEP09(2014)145 [arXiv:1406.3660 [hep-ex]].
- [453] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of inclusive jet charged-particle fragmentation functions in Pb+Pb collisions at  $\sqrt{s_{NN}}=2.76$  TeV with the ATLAS detector,” Phys. Lett. B **739**, 320 (2014) doi:10.1016/j.physletb.2014.10.065 [arXiv:1406.2979 [hep-ex]].
- [454] M. V. Chizhov, I. R. Boyko, V. A. Bednyakov and J. A. Budagov, “Hadron collider potential for excited bosons search,” Phys. Part. Nucl. **45**, no. 3, 517 (2014). doi:10.1134/S1063779614030034
- [455] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct pair production of the top squark in all-hadronic final states in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1409**, 015 (2014) doi:10.1007/JHEP09(2014)015 [arXiv:1406.1122 [hep-ex]].
- [456] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the underlying event in jet events from 7 TeV proton-proton collisions with the ATLAS detector,” Eur. Phys. J. C **74**, no. 8, 2965 (2014) doi:10.1140/epjc/s10052-014-2965-5 [arXiv:1406.0392 [hep-ex]].
- [457] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Jet energy measurement and its systematic uncertainty in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Eur. Phys. J. C **75**, 17 (2015) doi:10.1140/epjc/s10052-014-3190-y [arXiv:1406.0076 [hep-ex]].
- [458] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for squarks and gluinos with the ATLAS detector in final states with jets and missing transverse momentum using  $\sqrt{s} = 8$  TeV proton–proton collision data,” JHEP **1409**, 176 (2014) doi:10.1007/JHEP09(2014)176 [arXiv:1405.7875 [hep-ex]].
- [459] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Light-quark and gluon jet discrimination in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Eur. Phys. J. C **74**, no. 8, 3023 (2014) doi:10.1140/epjc/s10052-014-3023-z [arXiv:1405.6583 [hep-ex]].
- [460] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Evidence for Electroweak Production of  $W^\pm W^\pm jj$  in  $pp$  Collisions at  $\sqrt{s} = 8$  TeV with the ATLAS Detector,” Phys. Rev. Lett. **113**, no. 14, 141803 (2014) doi:10.1103/PhysRevLett.113.141803 [arXiv:1405.6241 [hep-ex]].
- [461] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in events with four or more leptons in  $\sqrt{s} = 8$  TeV  $pp$  collisions with the ATLAS detector,” Phys. Rev. D **90**, no. 5, 052001 (2014) doi:10.1103/PhysRevD.90.052001 [arXiv:1405.5086 [hep-ex]].
- [462] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for microscopic black holes and string balls in final states with leptons and jets with the ATLAS detector at  $\sqrt{s} = 8$  TeV,” JHEP **1408**, 103 (2014) doi:10.1007/JHEP08(2014)103 [arXiv:1405.4254 [hep-ex]].
- [463] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for high-mass dilepton resonances in  $pp$  collisions

- at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. D **90**, no. 5, 052005 (2014) doi:10.1103/PhysRevD.90.052005 [arXiv:1405.4123 [hep-ex]].
- [464] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the centrality and pseudorapidity dependence of the integrated elliptic flow in lead-lead collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector,” Eur. Phys. J. C **74**, no. 8, 2982 (2014) doi:10.1140/epjc/s10052-014-2982-4 [arXiv:1405.3936 [hep-ex]].
- [465] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Monitoring and data quality assessment of the ATLAS liquid argon calorimeter,” JINST **9**, P07024 (2014) doi:10.1088/1748-0221/9/07/P07024 [arXiv:1405.3768 [hep-ex]].
- [466] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Operation and performance of the ATLAS semiconductor tracker,” JINST **9**, P08009 (2014) doi:10.1088/1748-0221/9/08/P08009 [arXiv:1404.7473 [hep-ex]].
- [467] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the cross section of high transverse momentum  $Z \rightarrow b\bar{b}$  production in proton–proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS Detector,” Phys. Lett. B **738**, 25 (2014) doi:10.1016/j.physletb.2014.09.020 [arXiv:1404.7042 [hep-ex]].
- [468] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $\chi_{c1}$  and  $\chi_{c2}$  production with  $\sqrt{s} = 7$  TeV  $pp$  collisions at ATLAS,” JHEP **1407**, 154 (2014) doi:10.1007/JHEP07(2014)154 [arXiv:1404.7035 [hep-ex]].
- [469] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Muon reconstruction efficiency and momentum resolution of the ATLAS experiment in proton-proton collisions at  $\sqrt{s} = 7$  TeV in 2010,” Eur. Phys. J. C **74**, no. 9, 3034 (2014) doi:10.1140/epjc/s10052-014-3034-9 [arXiv:1404.4562 [hep-ex]].
- [470] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry at  $\sqrt{s}=8$  TeV in final states with jets and two same-sign leptons or three leptons with the ATLAS detector,” JHEP **1406**, 035 (2014) doi:10.1007/JHEP06(2014)035 [arXiv:1404.2500 [hep-ex]].
- [471] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Electron reconstruction and identification efficiency measurements with the ATLAS detector using the 2011 LHC proton-proton collision data,” Eur. Phys. J. C **74**, no. 7, 2941 (2014) doi:10.1140/epjc/s10052-014-2941-0 [arXiv:1404.2240 [hep-ex]].
- [472] I. Yeletsikh, V. Bednyakov and M. Chizhov, “Search for  $Z^*$  boson at ATLAS detector,” Phys. Part. Nucl. **45**, 254 (2014). doi:10.1134/S1063779614011139
- [473] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the low-mass Drell–Yan differential cross section at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” JHEP **1406**, 112 (2014) doi:10.1007/JHEP06(2014)112 [arXiv:1404.1212 [hep-ex]].
- [474] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the parity-violating asymmetry parameter  $\alpha_b$  and the helicity amplitudes for the decay  $\Lambda_b^0 \rightarrow J/\psi + \Lambda^0$  with the ATLAS detector,” Phys. Rev. D **89**, no. 9, 092009 (2014) doi:10.1103/PhysRevD.89.092009 [arXiv:1404.1071 [hep-ex]].
- [475] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter in events with a Z boson and missing transverse momentum in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector,” Phys. Rev. D **90**, no. 1, 012004 (2014) doi:10.1103/PhysRevD.90.012004 [arXiv:1404.0051 [hep-ex]].
- [476] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for top quark decays  $t \rightarrow qH$  with  $H \rightarrow \gamma\gamma$  using the ATLAS detector,” JHEP **1406**, 008 (2014) doi:10.1007/JHEP06(2014)008 [arXiv:1403.6293 [hep-ex]].
- [477] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of Four-Lepton Production at the Z Resonance in pp Collisions at  $\sqrt{s} = 7$  and 8 TeV with ATLAS,” Phys. Rev. Lett. **112**, no. 23, 231806 (2014) doi:10.1103/PhysRevLett.112.231806 [arXiv:1403.5657 [hep-ex]].
- [478] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct production of charginos, neutralinos and sleptons in final states with two leptons and missing transverse momentum in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1405**, 071 (2014) doi:10.1007/JHEP05(2014)071 [arXiv:1403.5294 [hep-ex]].
- [479] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct top squark pair production in events with a Z boson, b-jets and missing transverse momentum in  $\sqrt{s}=8$  TeV  $pp$  collisions with the ATLAS detector,” Eur. Phys. J. C **74**, no. 6, 2883 (2014) doi:10.1140/epjc/s10052-014-2883-6 [arXiv:1403.5222 [hep-ex]].
- [480] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct top-squark pair production in final states with two leptons in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” JHEP **1406**, 124 (2014) doi:10.1007/JHEP06(2014)124 [arXiv:1403.4853 [hep-ex]].
- [481] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of event-plane correlations in  $\sqrt{s_{NN}} = 2.76$  TeV lead-lead collisions with the ATLAS detector,” Phys. Rev. C **90**, no. 2, 024905 (2014) doi:10.1103/PhysRevC.90.024905 [arXiv:1403.0489 [hep-ex]].
- [482] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in  $\sqrt{s} = 8$  TeV  $pp$  collisions with the ATLAS detector,” JHEP **1404**, 169 (2014) doi:10.1007/JHEP04(2014)169 [arXiv:1402.7029 [hep-ex]].
- [483] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production of a W boson in association with a charm quark in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” JHEP **1405**, 068 (2014) doi:10.1007/JHEP05(2014)068 [arXiv:1402.6263 [hep-ex]].
- [484] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “The differential production cross section of the  $\phi$  (1020) meson in  $\sqrt{s} = 7$  TeV  $pp$  collisions measured with the ATLAS detector,” Eur. Phys. J. C **74**, no. 7, 2895 (2014) doi:10.1140/epjc/s10052-014-2895-2 [arXiv:1402.6162 [hep-ex]].
- [485] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Invisible Decays of a Higgs Boson Produced in Association with a Z Boson in ATLAS,” Phys. Rev. Lett. **112**, 201802 (2014) doi:10.1103/PhysRevLett.112.201802 [arXiv:1402.3244 [hep-ex]].
- [486] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Higgs boson decays to a photon and a Z boson in pp

- collisions at  $\sqrt{s}=7$  and 8 TeV with the ATLAS detector,” Phys. Lett. B **732**, 8 (2014) doi:10.1016/j.physletb.2014.03.015 [arXiv:1402.3051 [hep-ex]].
- [487] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the electroweak production of dijets in association with a Z-boson and distributions sensitive to vector boson fusion in proton-proton collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector,” JHEP **1404**, 031 (2014) doi:10.1007/JHEP04(2014)031 [arXiv:1401.7610 [hep-ex]].
- [488] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production cross section of prompt  $J/\psi$  mesons in association with a  $W^\pm$  boson in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” JHEP **1404**, 172 (2014) doi:10.1007/JHEP04(2014)172 [arXiv:1401.2831 [hep-ex]].
- [489] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of dijet cross sections in  $pp$  collisions at 7 TeV centre-of-mass energy using the ATLAS detector,” JHEP **1405**, 059 (2014) doi:10.1007/JHEP05(2014)059 [arXiv:1312.3524 [hep-ex]].
- [490] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a multi-Higgs-boson cascade in  $W^+W^-b\bar{b}$  events with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 8$  TeV,” Phys. Rev. D **89**, no. 3, 032002 (2014) doi:10.1103/PhysRevD.89.032002 [arXiv:1312.1956 [hep-ex]].
- [491] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Standalone vertex finding in the ATLAS muon spectrometer,” JINST **9**, P02001 (2014) doi:10.1088/1748-0221/9/02/P02001 [arXiv:1311.7070 [physics.ins-det]].
- [492] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top quark pair production charge asymmetry in proton-proton collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” JHEP **1402**, 107 (2014) doi:10.1007/JHEP02(2014)107 [arXiv:1311.6724 [hep-ex]].
- [493] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Quantum Black Hole Production in High-Invariant-Mass Lepton+Jet Final States Using  $pp$  Collisions at  $\sqrt{s} = 8$  TeV and the ATLAS Detector,” Phys. Rev. Lett. **112**, no. 9, 091804 (2014) doi:10.1103/PhysRevLett.112.091804 [arXiv:1311.2006 [hep-ex]].
- [494] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive isolated prompt photons cross section in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector using  $4.6 \text{ fb}^{-1}$ ,” Phys. Rev. D **89**, no. 5, 052004 (2014) doi:10.1103/PhysRevD.89.052004 [arXiv:1311.1440 [hep-ex]].
- [495] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for long-lived stopped R-hadrons decaying out-of-time with  $pp$  collisions using the ATLAS detector,” Phys. Rev. D **88**, no. 11, 112003 (2013) doi:10.1103/PhysRevD.88.112003 [arXiv:1310.6584 [hep-ex]].
- [496] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the mass difference between top and anti-top quarks in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” Phys. Lett. B **728**, 363 (2014) doi:10.1016/j.physletb.2013.12.010 [arXiv:1310.6527 [hep-ex]].
- [497] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for charginos nearly mass degenerate with the lightest neutralino based on a disappearing-track signature in  $pp$  collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector,” Phys. Rev. D **88**, no. 11, 112006 (2013) doi:10.1103/PhysRevD.88.112006 [arXiv:1310.3675 [hep-ex]].
- [498] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Technical Design Report for the Phase-I Upgrade of the ATLAS TDAQ System,” CERN-LHCC-2013-018, ATLAS-TDR-023.
- [499] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter in events with a hadronically decaying W or Z boson and missing transverse momentum in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Rev. Lett. **112**, no. 4, 041802 (2014) doi:10.1103/PhysRevLett.112.041802 [arXiv:1309.4017 [hep-ex]].
- [500] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in photon+jet events collected in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector,” Phys. Lett. B **728**, 562 (2014) doi:10.1016/j.physletb.2013.12.029 [arXiv:1309.3230 [hep-ex]].
- [501] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for microscopic black holes in a like-sign dimuon final state using large track multiplicity with the ATLAS detector,” Phys. Rev. D **88**, no. 7, 072001 (2013) doi:10.1103/PhysRevD.88.072001 [arXiv:1308.4075 [hep-ex]].
- [502] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct third-generation squark pair production in final states with missing transverse momentum and two  $b$ -jets in  $\sqrt{s} = 8$  TeV  $pp$  collisions with the ATLAS detector,” JHEP **1310**, 189 (2013) doi:10.1007/JHEP10(2013)189 [arXiv:1308.2631 [hep-ex]].
- [503] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in final states with large jet multiplicities and missing transverse momentum at  $\sqrt{s}=8$  TeV proton-proton collisions using the ATLAS experiment,” JHEP **1310**, 130 (2013) Erratum: [JHEP **1401**, 109 (2014)] doi:10.1007/JHEP10(2013)130, 10.1007/JHEP01(2014)109 [arXiv:1308.1841 [hep-ex]].
- [504] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for excited electrons and muons in  $\sqrt{s}=8$  TeV proton-proton collisions with the ATLAS detector,” New J. Phys. **15**, 093011 (2013) doi:10.1088/1367-2630/15/9/093011 [arXiv:1308.1364 [hep-ex]].
- [505] M. V. Chizhov, V. A. Bednyakov and J. A. Budagov, “Hadron collider potential for excited bosons search: A Snowmass whitepaper,” arXiv:1307.7274 [hep-ph].
- [506] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Dynamics of isolated-photon plus jet production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Nucl. Phys. B **875**, 483 (2013) doi:10.1016/j.nuclphysb.2013.07.025 [arXiv:1307.6795 [hep-ex]].
- [507] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of Top Quark Polarization in Top-Antitop Events from Proton-Proton Collisions at  $\sqrt{s} = 7$  TeV Using the ATLAS Detector,” Phys. Rev. Lett. **111**, no. 23, 232002 (2013) doi:10.1103/PhysRevLett.111.232002 [arXiv:1307.6511 [hep-ex]].
- [508] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of jet shapes in top-quark pair events at  $\sqrt{s} = 7$  TeV

- using the ATLAS detector,” *Eur. Phys. J. C* **73**, no. 12, 2676 (2013) doi:10.1140/epjc/s10052-013-2676-3 [arXiv:1307.5749 [hep-ex]].
- [509] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top quark charge in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *JHEP* **1311**, 031 (2013) doi:10.1007/JHEP11(2013)031 [arXiv:1307.4568 [hep-ex]].
- [510] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Evidence for the spin-0 nature of the Higgs boson using ATLAS data,” *Phys. Lett. B* **726**, 120 (2013) doi:10.1016/j.physletb.2013.08.026 [arXiv:1307.1432 [hep-ex]].
- [511] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of Higgs boson production and couplings in diboson final states with the ATLAS detector at the LHC,” *Phys. Lett. B* **726**, 88 (2013) Erratum: [*Phys. Lett. B* **734**, 406 (2014)] doi:10.1016/j.physletb.2014.05.011, 10.1016/j.physletb.2013.08.010 [arXiv:1307.1427 [hep-ex]].
- [512] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the differential cross-section of  $B^+$  meson production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV at ATLAS,” *JHEP* **1310**, 042 (2013) doi:10.1007/JHEP10(2013)042 [arXiv:1307.0126 [hep-ex]].
- [513] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the Azimuthal Angle Dependence of Inclusive Jet Yields in Pb+Pb Collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector,” *Phys. Rev. Lett.* **111**, no. 15, 152301 (2013) doi:10.1103/PhysRevLett.111.152301 [arXiv:1306.6469 [hep-ex]].
- [514] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of jet substructure techniques for large- $R$  jets in proton-proton collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *JHEP* **1309**, 076 (2013) doi:10.1007/JHEP09(2013)076 [arXiv:1306.4945 [hep-ex]].
- [515] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the high-mass Drell–Yan differential cross-section in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **725**, 223 (2013) doi:10.1016/j.physletb.2013.07.049 [arXiv:1305.4192 [hep-ex]].
- [516] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the distributions of event-by-event flow harmonics in lead-lead collisions at  $\sqrt{s} = 2.76$  TeV with the ATLAS detector at the LHC,” *JHEP* **1311**, 183 (2013) doi:10.1007/JHEP11(2013)183 [arXiv:1305.2942 [hep-ex]].
- [517] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $t\bar{t}$  resonances in the lepton plus jets final state with ATLAS using 4.7  $\text{fb}^{-1}$  of  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Phys. Rev. D* **88**, no. 1, 012004 (2013) doi:10.1103/PhysRevD.88.012004 [arXiv:1305.2756 [hep-ex]].
- [518] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Triggers for displaced decays of long-lived neutral particles in the ATLAS detector,” *JINST* **8**, P07015 (2013) doi:10.1088/1748-0221/8/07/P07015 [arXiv:1305.2284 [hep-ex]].
- [519] M. Chizhov and P. Danev “Analysis of neutrino fluxes from cosmic rays interactions in the Earth’s atmosphere,” *Bulgarian Astronomical Journal* **19**, 45-60 (2013).
- [520] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for resonant diboson production in the  $WW/WZ \rightarrow l\nu jj$  decay channels with the ATLAS detector at  $\sqrt{s} = 7$  TeV,” *Phys. Rev. D* **87**, no. 11, 112006 (2013) doi:10.1103/PhysRevD.87.112006 [arXiv:1305.0125 [hep-ex]].
- [521] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production cross section of jets in association with a  $Z$  boson in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *JHEP* **1307**, 032 (2013) doi:10.1007/JHEP07(2013)032 [arXiv:1304.7098 [hep-ex]].
- [522] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of heavy-flavor quarks produced in association with top-quark pairs at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *Phys. Rev. D* **89**, no. 7, 072012 (2014) doi:10.1103/PhysRevD.89.072012 [arXiv:1304.6386 [hep-ex]].
- [523] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for nonpointing photons in the diphoton and  $E_T^{miss}$  final state in  $\sqrt{s} = 7$  TeV proton-proton collisions using the ATLAS detector,” *Phys. Rev. D* **88**, no. 1, 012001 (2013) doi:10.1103/PhysRevD.88.012001 [arXiv:1304.6310 [hep-ex]].
- [524] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive jet cross section in  $pp$  collisions at  $\sqrt{s} = 2.76$  TeV and comparison to the inclusive jet cross section at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *Eur. Phys. J. C* **73**, no. 8, 2509 (2013) doi:10.1140/epjc/s10052-013-2509-4 [arXiv:1304.4739 [hep-ex]].
- [525] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement with the ATLAS detector of multi-particle azimuthal correlations in  $p$ +Pb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV,” *Phys. Lett. B* **725**, 60 (2013) doi:10.1016/j.physletb.2013.06.057 [arXiv:1303.2084 [hep-ex]].
- [526] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for third generation scalar leptoquarks in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *JHEP* **1306**, 033 (2013) doi:10.1007/JHEP06(2013)033 [arXiv:1303.0526 [hep-ex]].
- [527] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Characterisation and mitigation of beam-induced backgrounds observed in the ATLAS detector during the 2011 proton-proton run,” *JINST* **8**, P07004 (2013) doi:10.1088/1748-0221/8/07/P07004 [arXiv:1303.0223 [hep-ex]].
- [528] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $WH$  production with a light Higgs boson decaying to prompt electron-jets in proton-proton collisions at  $\sqrt{s}=7$  TeV with the ATLAS detector,” *New J. Phys.* **15**, 043009 (2013) doi:10.1088/1367-2630/15/4/043009 [arXiv:1302.4403 [hep-ex]].
- [529] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Improved luminosity determination in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector at the LHC,” *Eur. Phys. J. C* **73**, no. 8, 2518 (2013) doi:10.1140/epjc/s10052-013-2518-3 [arXiv:1302.4393 [hep-ex]].
- [530] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a light charged Higgs boson in the decay channel  $H^+ \rightarrow c\bar{s}$  in  $t\bar{t}$  events using  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **73**, no. 6, 2465 (2013) doi:10.1140/epjc/s10052-013-2465-z [arXiv:1302.3694 [hep-ex]].



- [531] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the cross-section for W boson production in association with b-jets in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” JHEP **1306**, 084 (2013) doi:10.1007/JHEP06(2013)084 [arXiv:1302.2929 [hep-ex]].
- [532] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of kT splitting scales in  $W \rightarrow \ell\nu$  events at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Eur. Phys. J. C **73**, no. 5, 2432 (2013) doi:10.1140/epjc/s10052-013-2432-8 [arXiv:1302.1415 [hep-ex]].
- [533] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of  $W\gamma$  and  $Z\gamma$  production in pp collisions at  $\sqrt{s}=7$  TeV with the ATLAS detector at the LHC,” Phys. Rev. D **87**, no. 11, 112003 (2013) Erratum: [Phys. Rev. D **91**, no. 11, 119901 (2015)] doi:10.1103/PhysRevD.87.112003, 10.1103/PhysRevD.91.119901 [arXiv:1302.1283 [hep-ex]].
- [534] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of hard double-parton interactions in  $W(\rightarrow \ell\nu)+2$  jet events at  $\sqrt{s}=7$  TeV with the ATLAS detector,” New J. Phys. **15**, 033038 (2013) doi:10.1088/1367-2630/15/3/033038 [arXiv:1301.6872 [hep-ex]].
- [535] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for long-lived, multi-charged particles in pp collisions at  $\sqrt{s}=7$  TeV using the ATLAS detector,” Phys. Lett. B **722**, 305 (2013) doi:10.1016/j.physletb.2013.04.036 [arXiv:1301.5272 [hep-ex]].
- [536] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for single  $b^*$ -quark production with the ATLAS detector at  $\sqrt{s} = 7$  TeV,” Phys. Lett. B **721**, 171 (2013) doi:10.1016/j.physletb.2013.03.016 [arXiv:1301.1583 [hep-ex]].
- [537] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Multi-channel search for squarks and gluinos in  $\sqrt{s} = 7$  TeV pp collisions with the ATLAS detector,” Eur. Phys. J. C **73**, no. 3, 2362 (2013) doi:10.1140/epjc/s10052-013-2362-5 [arXiv:1212.6149 [hep-ex]].
- [538] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for prompt lepton-jets in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Lett. B **719**, 299 (2013) doi:10.1016/j.physletb.2013.01.034 [arXiv:1212.5409 [hep-ex]].
- [539] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Observation of Associated Near-Side and Away-Side Long-Range Correlations in  $\sqrt{s_{NN}}=5.02$  TeV Proton-Lead Collisions with the ATLAS Detector,” Phys. Rev. Lett. **110**, no. 18, 182302 (2013) doi:10.1103/PhysRevLett.110.182302 [arXiv:1212.5198 [hep-ex]].
- [540] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for charged Higgs bosons through the violation of lepton universality in  $t\bar{t}$  events using pp collision data at  $\sqrt{s} = 7$  TeV with the ATLAS experiment,” JHEP **1303**, 076 (2013) doi:10.1007/JHEP03(2013)076 [arXiv:1212.3572 [hep-ex]].
- [541] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a heavy narrow resonance decaying to  $e\mu$ ,  $e\tau$ , or  $\mu\tau$  with the ATLAS detector in  $\sqrt{s} = 7$  TeV pp collisions at the LHC,” Phys. Lett. B **723**, 15 (2013) doi:10.1016/j.physletb.2013.04.035 [arXiv:1212.1272 [hep-ex]].
- [542] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the neutral Higgs bosons of the Minimal Supersymmetric Standard Model in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” JHEP **1302**, 095 (2013) doi:10.1007/JHEP02(2013)095 [arXiv:1211.6956 [hep-ex]].
- [543] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of angular correlations in Drell–Yan lepton pairs to probe  $Z/\gamma^*$  boson transverse momentum at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Lett. B **720**, 32 (2013) doi:10.1016/j.physletb.2013.01.054 [arXiv:1211.6899 [hep-ex]].
- [544] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in events with three charged leptons at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Rev. D **87**, no. 5, 052002 (2013) doi:10.1103/PhysRevD.87.052002 [arXiv:1211.6312 [hep-ex]].
- [545] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of ZZ production in pp collisions at  $\sqrt{s} = 7$  TeV and limits on anomalous ZZZ and ZZ $\gamma$  couplings with the ATLAS detector,” JHEP **1303**, 128 (2013) doi:10.1007/JHEP03(2013)128 [arXiv:1211.6096 [hep-ex]].
- [546] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for resonances decaying into top-quark pairs using fully hadronic decays in pp collisions with ATLAS at  $\sqrt{s} = 7$  TeV,” JHEP **1301**, 116 (2013) doi:10.1007/JHEP01(2013)116 [arXiv:1211.2202 [hep-ex]].
- [547] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of isolated-photon pair production in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” JHEP **1301**, 086 (2013) doi:10.1007/JHEP01(2013)086 [arXiv:1211.1913 [hep-ex]].
- [548] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in events with photons, bottom quarks, and missing transverse momentum in proton-proton collisions at a centre-of-mass energy of 7 TeV with the ATLAS detector,” Phys. Lett. B **719**, 261 (2013) doi:10.1016/j.physletb.2013.01.041 [arXiv:1211.1167 [hep-ex]].
- [549] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for contact interactions and large extra dimensions in dilepton events from pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Rev. D **87**, no. 1, 015010 (2013) doi:10.1103/PhysRevD.87.015010 [arXiv:1211.1150 [hep-ex]].
- [550] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Searches for heavy long-lived sleptons and R-Hadrons with the ATLAS detector in pp collisions at  $\sqrt{s} = 7$  TeV,” Phys. Lett. B **720**, 277 (2013) doi:10.1016/j.physletb.2013.02.015 [arXiv:1211.1597 [hep-ex]].
- [551] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of Upsilon production in 7 TeV pp collisions at ATLAS,” Phys. Rev. D **87**, no. 5, 052004 (2013) doi:10.1103/PhysRevD.87.052004 [arXiv:1211.7255 [hep-ex]].
- [552] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the ttbar production cross section in the tau+jets channel using the ATLAS detector,” Eur. Phys. J. C **73**, no. 3, 2328 (2013) doi:10.1140/epjc/s10052-013-2328-7 [arXiv:1211.7205 [hep-ex]].
- [553] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Extra Dimensions in diphoton events using proton-

- proton collisions recorded at  $\sqrt{s} = 7$  TeV with the ATLAS detector at the LHC,” *New J. Phys.* **15**, 043007 (2013) doi:10.1088/1367-2630/15/4/043007 [arXiv:1210.8389 [hep-ex]].
- [554] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for long-lived, heavy particles in final states with a muon and multi-track displaced vertex in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **719**, 280 (2013) doi:10.1016/j.physletb.2013.01.042 [arXiv:1210.7451 [hep-ex]].
- [555] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for high-mass resonances decaying to  $\tau^+\tau^-$  in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **719**, 242 (2013) doi:10.1016/j.physletb.2013.01.040 [arXiv:1210.6604 [hep-ex]].
- [556] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $Z$  boson Production in Pb+Pb Collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS Detector,” *Phys. Rev. Lett.* **110**, no. 2, 022301 (2013) doi:10.1103/PhysRevLett.110.022301 [arXiv:1210.6486 [hep-ex]].
- [557] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Jet energy resolution in proton-proton collisions at  $\sqrt{s} = 7$  TeV recorded in 2010 with the ATLAS detector,” *Eur. Phys. J. C* **73**, no. 3, 2306 (2013) doi:10.1140/epjc/s10052-013-2306-0 [arXiv:1210.6210 [hep-ex]].
- [558] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of heavy top-like quarks decaying to a high-pT  $W$  boson and a  $b$  quark in the lepton plus jets final state at  $\sqrt{s}=7$  TeV with the ATLAS detector,” *Phys. Lett. B* **718**, 1284 (2013) doi:10.1016/j.physletb.2012.11.071 [arXiv:1210.5468 [hep-ex]].
- [559] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for doubly-charged Higgs bosons in like-sign dilepton final states at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **72**, 2244 (2012) doi:10.1140/epjc/s10052-012-2244-2 [arXiv:1210.5070 [hep-ex]].
- [560] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair-produced massive coloured scalars in four-jet final states with the ATLAS detector in proton-proton collisions at  $\sqrt{s} = 7$  TeV,” *Eur. Phys. J. C* **73**, no. 1, 2263 (2013) doi:10.1140/epjc/s10052-012-2263-z [arXiv:1210.4826 [hep-ex]].
- [561] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of massive particles decaying into three quarks with the ATLAS detector in  $\sqrt{s} = 7$  TeV  $pp$  collisions at the LHC,” *JHEP* **1212**, 086 (2012) doi:10.1007/JHEP12(2012)086 [arXiv:1210.4813 [hep-ex]].
- [562] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for anomalous production of prompt like-sign lepton pairs at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *JHEP* **1212**, 007 (2012) doi:10.1007/JHEP12(2012)007 [arXiv:1210.4538 [hep-ex]].
- [563] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter candidates and large extra dimensions in events with a jet and missing transverse momentum with the ATLAS detector,” *JHEP* **1304**, 075 (2013) doi:10.1007/JHEP04(2013)075 [arXiv:1210.4491 [hep-ex]].
- [564] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for R-parity-violating supersymmetry in events with four or more leptons in  $\sqrt{s} = 7$  TeV  $pp$  collisions with the ATLAS detector,” *JHEP* **1212**, 124 (2012) doi:10.1007/JHEP12(2012)124 [arXiv:1210.4457 [hep-ex]].
- [565] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $W^+W^-$  production in  $pp$  collisions at  $\sqrt{s}=7$  TeV with the ATLAS detector and limits on anomalous WWZ and WW $\gamma$  couplings,” *Phys. Rev. D* **87**, no. 11, 112001 (2013) Erratum: [*Phys. Rev. D* **88**, no. 7, 079906 (2013)] doi:10.1103/PhysRevD.87.112001, 10.1103/PhysRevD.88.079906 [arXiv:1210.2979 [hep-ex]].
- [566] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct chargino production in anomaly-mediated supersymmetry breaking models based on a disappearing-track signature in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *JHEP* **1301**, 131 (2013) doi:10.1007/JHEP01(2013)131 [arXiv:1210.2852 [hep-ex]].
- [567] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “ATLAS search for new phenomena in dijet mass and angular distributions using  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *JHEP* **1301**, 029 (2013) doi:10.1007/JHEP01(2013)029 [arXiv:1210.1718 [hep-ex]].
- [568] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Supersymmetry in Events with Large Missing Transverse Momentum, Jets, and at Least One Tau Lepton in 7 TeV Proton-Proton Collision Data with the ATLAS Detector,” *Eur. Phys. J. C* **72**, 2215 (2012) doi:10.1140/epjc/s10052-012-2215-7 [arXiv:1210.1314 [hep-ex]].
- [569] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the flavour composition of dijet events in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **73**, no. 2, 2301 (2013) doi:10.1140/epjc/s10052-013-2301-5 [arXiv:1210.0441 [hep-ex]].
- [570] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for displaced muonic lepton jets from light Higgs boson decay in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **721**, 32 (2013) doi:10.1016/j.physletb.2013.02.058 [arXiv:1210.0435 [hep-ex]].
- [571] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for resonant top plus jet production in  $t\bar{t}$  + jets events with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Phys. Rev. D* **86**, 091103 (2012) doi:10.1103/PhysRevD.86.091103 [arXiv:1209.6593 [hep-ex]].
- [572] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dark matter candidates and large extra dimensions in events with a photon and missing transverse momentum in  $pp$  collision data at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. Lett.* **110**, no. 1, 011802 (2013) doi:10.1103/PhysRevLett.110.011802 [arXiv:1209.4625 [hep-ex]].
- [573] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “ATLAS search for a heavy gauge boson decaying to a charged lepton and a neutrino in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Eur. Phys. J. C* **72**, 2241 (2012) doi:10.1140/epjc/s10052-012-2241-5 [arXiv:1209.4446 [hep-ex]].
- [574] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a heavy top-quark partner in final states with two

- leptons with the ATLAS detector at the LHC,” JHEP **1211**, 094 (2012) doi:10.1007/JHEP11(2012)094 [arXiv:1209.4186 [hep-ex]].
- [575] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for high-mass resonances decaying to dilepton final states in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” JHEP **1211**, 138 (2012) doi:10.1007/JHEP11(2012)138 [arXiv:1209.2535 [hep-ex]].
- [576] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for light top squark pair production in final states with leptons and  $b^-$  jets with the ATLAS detector in  $\sqrt{s} = 7$  TeV proton-proton collisions,” Phys. Lett. B **720**, 13 (2013) doi:10.1016/j.physletb.2013.01.049 [arXiv:1209.2102 [hep-ex]].
- [577] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for diphoton events with large missing transverse momentum in 7 TeV proton-proton collision data with the ATLAS detector,” Phys. Lett. B **718**, 411 (2012) doi:10.1016/j.physletb.2012.10.069 [arXiv:1209.0753 [hep-ex]].
- [578] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of the pseudorapidity dependence of the total transverse energy in proton-proton collisions at  $\sqrt{s} = 7$  TeV with ATLAS,” JHEP **1211**, 033 (2012) doi:10.1007/JHEP11(2012)033 [arXiv:1208.6256 [hep-ex]].
- [579] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Further search for supersymmetry at  $\sqrt{s} = 7$  TeV in final states with jets, missing transverse momentum and isolated leptons with the ATLAS detector,” Phys. Rev. D **86**, 092002 (2012) doi:10.1103/PhysRevD.86.092002 [arXiv:1208.4688 [hep-ex]].
- [580] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for light scalar top quark pair production in final states with two leptons with the ATLAS detector in  $\sqrt{s} = 7$  TeV proton-proton collisions,” Eur. Phys. J. C **72**, 2237 (2012) doi:10.1140/epjc/s10052-012-2237-1 [arXiv:1208.4305 [hep-ex]].
- [581] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in  $\sqrt{s} = 7$  TeV  $pp$  collisions with the ATLAS detector,” Phys. Lett. B **718**, 841 (2013) doi:10.1016/j.physletb.2012.11.039 [arXiv:1208.3144 [hep-ex]].
- [582] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct slepton and gaugino production in final states with two leptons and missing transverse momentum with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” Phys. Lett. B **718**, 879 (2013) doi:10.1016/j.physletb.2012.11.058 [arXiv:1208.2884 [hep-ex]].
- [583] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in the  $WW$  to  $\ell\nu\ell'\nu'$  final state in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Lett. B **718**, 860 (2013) doi:10.1016/j.physletb.2012.11.040 [arXiv:1208.2880 [hep-ex]].
- [584] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for direct top squark pair production in final states with one isolated lepton, jets, and missing transverse momentum in  $\sqrt{s} = 7$  TeV  $pp$  collisions using  $4.7\text{ fb}^{-1}$  of ATLAS data,” Phys. Rev. Lett. **109**, 211803 (2012) doi:10.1103/PhysRevLett.109.211803 [arXiv:1208.2590 [hep-ex]].
- [585] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the jet radius and transverse momentum dependence of inclusive jet suppression in lead-lead collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector,” Phys. Lett. B **719**, 220 (2013) doi:10.1016/j.physletb.2013.01.024 [arXiv:1208.1967 [hep-ex]].
- [586] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a supersymmetric partner to the top quark in final states with jets and missing transverse momentum at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Rev. Lett. **109**, 211802 (2012) doi:10.1103/PhysRevLett.109.211802 [arXiv:1208.1447 [hep-ex]].
- [587] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $WZ$  production in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Eur. Phys. J. C **72**, 2173 (2012) doi:10.1140/epjc/s10052-012-2173-0 [arXiv:1208.1390 [hep-ex]].
- [588] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for squarks and gluinos with the ATLAS detector in final states with jets and missing transverse momentum using  $4.7\text{ fb}^{-1}$  of  $\sqrt{s} = 7$  TeV proton-proton collision data,” Phys. Rev. D **87**, no. 1, 012008 (2013) doi:10.1103/PhysRevD.87.012008 [arXiv:1208.0949 [hep-ex]].
- [589] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Time-dependent angular analysis of the decay  $B_s^0 \rightarrow J/\psi\phi$  and extraction of  $\Delta\Gamma_s$  and the CP-violating weak phase  $\phi_s$  by ATLAS,” JHEP **1212**, 072 (2012) doi:10.1007/JHEP12(2012)072 [arXiv:1208.0572 [hep-ex]].
- [590] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Underlying event characteristics and their dependence on jet size of charged-particle jet events in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Rev. D **86**, 072004 (2012) doi:10.1103/PhysRevD.86.072004 [arXiv:1208.0563 [hep-ex]].
- [591] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC,” Phys. Lett. B **716**, 1 (2012) doi:10.1016/j.physletb.2012.08.020 [arXiv:1207.7214 [hep-ex]].
- [592] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of charged-particle event shape variables in  $\sqrt{s} = 7$  TeV proton-proton interactions with the ATLAS detector,” Phys. Rev. D **88**, no. 3, 032004 (2013) doi:10.1103/PhysRevD.88.032004 [arXiv:1207.6915 [hep-ex]].
- [593] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for magnetic monopoles in  $\sqrt{s} = 7$  TeV  $pp$  collisions with the ATLAS detector,” Phys. Rev. Lett. **109**, 261803 (2012) doi:10.1103/PhysRevLett.109.261803 [arXiv:1207.6411 [hep-ex]].
- [594] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of top quark pair relative differential cross-sections with ATLAS in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” Eur. Phys. J. C **73**, no. 1, 2261 (2013) doi:10.1140/epjc/s10052-012-2261-1 [arXiv:1207.5644 [hep-ex]].
- [595] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for top and bottom squarks from gluino pair production in final states with missing transverse energy and at least three b-jets with the ATLAS detector,” Eur. Phys. J. C **72**,

- 2174 (2012) doi:10.1140/epjc/s10052-012-2174-z [arXiv:1207.4686 [hep-ex]].
- [596] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for  $t\bar{t}$  resonances in lepton+jets events with highly boosted top quarks collected in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” JHEP **1209**, 041 (2012) doi:10.1007/JHEP09(2012)041 [arXiv:1207.2409 [hep-ex]].
- [597] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $\Lambda_b^0$  lifetime and mass in the ATLAS experiment,” Phys. Rev. D **87**, no. 3, 032002 (2013) doi:10.1103/PhysRevD.87.032002 [arXiv:1207.2284 [hep-ex]].
- [598] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Combined search for the Standard Model Higgs boson in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Rev. D **86**, 032003 (2012) doi:10.1103/PhysRevD.86.032003 [arXiv:1207.0319 [hep-ex]].
- [599] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson produced in association with a vector boson and decaying to a  $b$ -quark pair with the ATLAS detector,” Phys. Lett. B **718**, 369 (2012) doi:10.1016/j.physletb.2012.10.061 [arXiv:1207.0210 [hep-ex]].
- [600] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Higgs boson in the  $H \rightarrow WW \rightarrow \ell\nu jj$  decay channel at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Lett. B **718**, 391 (2012) doi:10.1016/j.physletb.2012.10.066 [arXiv:1206.6074 [hep-ex]].
- [601] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson in the  $H$  to  $\tau^+\tau^-$  decay mode in  $\sqrt{s} = 7$  TeV  $pp$  collisions with ATLAS,” JHEP **1209**, 070 (2012) doi:10.1007/JHEP09(2012)070 [arXiv:1206.5971 [hep-ex]].
- [602] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “ATLAS measurements of the properties of jets for boosted particle searches,” Phys. Rev. D **86**, 072006 (2012) doi:10.1103/PhysRevD.86.072006 [arXiv:1206.5369 [hep-ex]].
- [603] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $b$ -hadron production cross section using decays to  $D^*\mu^-X$  final states in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Nucl. Phys. B **864**, 341 (2012) doi:10.1016/j.nuclphysb.2012.07.009 [arXiv:1206.3122 [hep-ex]].
- [604] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a standard model Higgs boson in the mass range 200-600 GeV in the  $H \rightarrow ZZ \rightarrow \ell^+\ell^-q\bar{q}$  decay channel with the ATLAS detector,” Phys. Lett. B **717**, 70 (2012) doi:10.1016/j.physletb.2012.09.020 [arXiv:1206.2443 [hep-ex]].
- [605] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of event shapes at large momentum transfer with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” Eur. Phys. J. C **72**, 2211 (2012) doi:10.1140/epjc/s10052-012-2211-y [arXiv:1206.2135 [hep-ex]].
- [606] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Hunt for new phenomena using large jet multiplicities and missing transverse momentum with ATLAS in  $4.7 \text{ fb}^{-1}$  of  $\sqrt{s} = 7$  TeV proton-proton collisions,” JHEP **1207**, 167 (2012) doi:10.1007/JHEP07(2012)167 [arXiv:1206.1760 [hep-ex]].
- [607] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson in the  $H \rightarrow WW(*) \rightarrow \ell\nu\ell\nu$  decay mode with  $4.7 \text{ /fb}$  of ATLAS data at  $\sqrt{s} = 7$  TeV,” Phys. Lett. B **716**, 62 (2012) doi:10.1016/j.physletb.2012.08.010 [arXiv:1206.0756 [hep-ex]].
- [608] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for flavour changing neutral currents in top-quark decays in  $pp$  collision data collected with the ATLAS detector at  $\sqrt{s} = 7$  TeV,” JHEP **1209**, 139 (2012) doi:10.1007/JHEP09(2012)139 [arXiv:1206.0257 [hep-ex]].
- [609] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a standard model Higgs boson in the  $H \rightarrow ZZ \rightarrow \ell^+\ell^-\nu\bar{\nu}$  decay channel using  $4.7 \text{ fb}^{-1}$  of  $\sqrt{s} = 7$  TeV data with the ATLAS detector,” Phys. Lett. B **717**, 29 (2012) doi:10.1016/j.physletb.2012.09.016 [arXiv:1205.6744 [hep-ex]].
- [610] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Evidence for the associated production of a  $W$  boson and a top quark in ATLAS at  $\sqrt{s} = 7$  TeV,” Phys. Lett. B **716**, 142 (2012) doi:10.1016/j.physletb.2012.08.011 [arXiv:1205.5764 [hep-ex]].
- [611] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A search for  $t\bar{t}$  resonances with the ATLAS detector in  $2.05 \text{ fb}^{-1}$  of proton-proton collisions at  $\sqrt{s} = 7$  TeV,” Eur. Phys. J. C **72**, 2083 (2012) doi:10.1140/epjc/s10052-012-2083-1 [arXiv:1205.5371 [hep-ex]].
- [612] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $t$ -channel single top-quark production cross section in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Lett. B **717**, 330 (2012) doi:10.1016/j.physletb.2012.09.031 [arXiv:1205.3130 [hep-ex]].
- [613] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $W\gamma$  and  $Z\gamma$  production cross sections in  $pp$  collisions at  $\sqrt{s} = 7$  TeV and limits on anomalous triple gauge couplings with the ATLAS detector,” Phys. Lett. B **717**, 49 (2012) doi:10.1016/j.physletb.2012.09.017 [arXiv:1205.2531 [hep-ex]].
- [614] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $W$  boson polarization in top quark decays with the ATLAS detector,” JHEP **1206**, 088 (2012) doi:10.1007/JHEP06(2012)088 [arXiv:1205.2484 [hep-ex]].
- [615] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top quark pair cross section with ATLAS in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using final states with an electron or a muon and a hadronically decaying  $\tau$  lepton,” Phys. Lett. B **717**, 89 (2012) doi:10.1016/j.physletb.2012.09.032 [arXiv:1205.2067 [hep-ex]].
- [616] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for  $t\bar{b}$  resonances in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” Phys. Rev. Lett. **109**, 081801 (2012) doi:10.1103/PhysRevLett.109.081801 [arXiv:1205.1016 [hep-ex]].
- [617] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for lepton flavour violation in the  $e\mu$  continuum with the ATLAS detector in  $\sqrt{s} = 7$  TeV  $pp$  collisions at the LHC,” Eur. Phys. J. C **72**, 2040 (2012) doi:10.1140/epjc/s10052-012-2040-z [arXiv:1205.0725 [hep-ex]].

- [618] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a fermiophobic Higgs boson in the diphoton decay channel with the ATLAS detector,” *Eur. Phys. J. C* **72**, 2157 (2012) doi:10.1140/epjc/s10052-012-2157-0 [arXiv:1205.0701 [hep-ex]].
- [619] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for scalar top quark pair production in natural gauge mediated supersymmetry models with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Phys. Lett. B* **715**, 44 (2012) doi:10.1016/j.physletb.2012.07.010 [arXiv:1204.6736 [hep-ex]].
- [620] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $\tau$  polarization in  $W \rightarrow \tau\nu$  decays with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Eur. Phys. J. C* **72**, 2062 (2012) doi:10.1140/epjc/s10052-012-2062-6 [arXiv:1204.6720 [hep-ex]].
- [621] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in events with three leptons and missing transverse momentum in  $\sqrt{s} = 7$  TeV  $pp$  collisions with the ATLAS detector,” *Phys. Rev. Lett.* **108**, 261804 (2012) doi:10.1103/PhysRevLett.108.261804 [arXiv:1204.5638 [hep-ex]].
- [622] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for TeV-scale gravity signatures in final states with leptons and jets with the ATLAS detector at  $\sqrt{s} = 7$  TeV,” *Phys. Lett. B* **716**, 122 (2012) doi:10.1016/j.physletb.2012.08.009 [arXiv:1204.4646 [hep-ex]].
- [623] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry with jets, missing transverse momentum and at least one hadronically decaying  $\tau$  lepton in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **714**, 197 (2012) doi:10.1016/j.physletb.2012.06.061 [arXiv:1204.3852 [hep-ex]].
- [624] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for charged Higgs bosons decaying via  $H^+ \rightarrow \tau\nu$  in top quark pair events using  $pp$  collision data at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *JHEP* **1206**, 039 (2012) doi:10.1007/JHEP06(2012)039 [arXiv:1204.2760 [hep-ex]].
- [625] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for resonant  $WZ$  production in the  $WZ \rightarrow \ell\nu\ell'\ell'$  channel in  $\sqrt{s} = 7$  TeV  $pp$  collisions with the ATLAS detector,” *Phys. Rev. D* **85**, 112012 (2012) doi:10.1103/PhysRevD.85.112012 [arXiv:1204.1648 [hep-ex]].
- [626] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of a new quark that decays to a Z boson and a bottom quark with the ATLAS detector,” *Phys. Rev. Lett.* **109**, 071801 (2012) doi:10.1103/PhysRevLett.109.071801 [arXiv:1204.1265 [hep-ex]].
- [627] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the decay  $B_s^0 \rightarrow \mu\mu$  with the ATLAS detector,” *Phys. Lett. B* **713**, 387 (2012) doi:10.1016/j.physletb.2012.06.013 [arXiv:1204.0735 [hep-ex]].
- [628] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for events with large missing transverse momentum, jets, and at least two tau leptons in 7 TeV proton-proton collision data with the ATLAS detector,” *Phys. Lett. B* **714**, 180 (2012) doi:10.1016/j.physletb.2012.06.055 [arXiv:1203.6580 [hep-ex]].
- [629] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $WW$  cross section in  $\sqrt{s} = 7$  TeV  $pp$  collisions with the ATLAS detector and limits on anomalous gauge couplings,” *Phys. Lett. B* **712**, 289 (2012) doi:10.1016/j.physletb.2012.05.003 [arXiv:1203.6232 [hep-ex]].
- [630] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in  $pp$  collisions at  $\sqrt{s} = 7$  TeV in final states with missing transverse momentum and  $b^-$  jets with the ATLAS detector,” *Phys. Rev. D* **85**, 112006 (2012) doi:10.1103/PhysRevD.85.112006 [arXiv:1203.6193 [hep-ex]].
- [631] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for gluinos in events with two same-sign leptons, jets and missing transverse momentum with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Phys. Rev. Lett.* **108**, 241802 (2012) doi:10.1103/PhysRevLett.108.241802 [arXiv:1203.5763 [hep-ex]].
- [632] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top quark mass with the template method in the  $t\bar{t} \rightarrow$  lepton + jets channel using ATLAS data,” *Eur. Phys. J. C* **72**, 2046 (2012) doi:10.1140/epjc/s10052-012-2046-6 [arXiv:1203.5755 [hep-ex]].
- [633] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy neutrinos and right-handed  $W$  bosons in events with two leptons and jets in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **72**, 2056 (2012) doi:10.1140/epjc/s10052-012-2056-4 [arXiv:1203.5420 [hep-ex]].
- [634] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $t\bar{t}$  production with a veto on additional central jet activity in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *Eur. Phys. J. C* **72**, 2043 (2012) doi:10.1140/epjc/s10052-012-2043-9 [arXiv:1203.5015 [hep-ex]].
- [635] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Jet mass and substructure of inclusive jets in  $\sqrt{s} = 7$  TeV  $pp$  collisions with the ATLAS experiment,” *JHEP* **1205**, 128 (2012) doi:10.1007/JHEP05(2012)128 [arXiv:1203.4606 [hep-ex]].
- [636] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the charge asymmetry in top quark pair production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *Eur. Phys. J. C* **72**, 2039 (2012) doi:10.1140/epjc/s10052-012-2039-5 [arXiv:1203.4211 [hep-ex]].
- [637] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Observation of spin correlation in  $t\bar{t}$  events from  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *Phys. Rev. Lett.* **108**, 212001 (2012) doi:10.1103/PhysRevLett.108.212001 [arXiv:1203.4081 [hep-ex]].
- [638] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Determination of the strange quark density of the proton from ATLAS measurements of the  $W \rightarrow \ell\nu$  and  $Z \rightarrow \ell\ell$  cross sections,” *Phys. Rev. Lett.* **109**, 012001 (2012) doi:10.1103/PhysRevLett.109.012001 [arXiv:1203.4051 [hep-ex]].
- [639] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of inclusive two-particle angular correlations in  $pp$  collisions with the ATLAS detector at the LHC,” *JHEP* **1205**, 157 (2012) doi:10.1007/JHEP05(2012)157 [arXiv:1203.3549

- [hep-ex]].
- [640] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for second generation scalar leptoquarks in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **72**, 2151 (2012) doi:10.1140/epjc/s10052-012-2151-6 [arXiv:1203.3172 [hep-ex]].
- [641] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production cross section of an isolated photon associated with jets in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. D* **85**, 092014 (2012) doi:10.1103/PhysRevD.85.092014 [arXiv:1203.3161 [hep-ex]].
- [642] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Forward-backward correlations and charged-particle azimuthal distributions in  $pp$  interactions using the ATLAS detector,” *JHEP* **1207**, 019 (2012) doi:10.1007/JHEP07(2012)019 [arXiv:1203.3100 [hep-ex]].
- [643] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the azimuthal anisotropy for charged particle production in  $\sqrt{s_{NN}} = 2.76$  TeV lead-lead collisions with the ATLAS detector,” *Phys. Rev. C* **86**, 014907 (2012) doi:10.1103/PhysRevC.86.014907 [arXiv:1203.3087 [hep-ex]].
- [644] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the polarisation of  $W$  bosons produced with large transverse momentum in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS experiment,” *Eur. Phys. J. C* **72**, 2001 (2012) doi:10.1140/epjc/s10052-012-2001-6 [arXiv:1203.2165 [hep-ex]].
- [645] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a light Higgs boson decaying to long-lived weakly-interacting particles in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. Lett.* **108**, 251801 (2012) doi:10.1103/PhysRevLett.108.251801 [arXiv:1203.1303 [hep-ex]].
- [646] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Single hadron response measurement and calorimeter jet energy scale uncertainty with the ATLAS detector at the LHC,” *Eur. Phys. J. C* **73**, no. 3, 2305 (2013) doi:10.1140/epjc/s10052-013-2305-1 [arXiv:1203.1302 [hep-ex]].
- [647] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new particles decaying to  $ZZ$  using final states with leptons and jets with the ATLAS detector in  $\sqrt{s} = 7$  TeV proton-proton collisions,” *Phys. Lett. B* **712**, 331 (2012) doi:10.1016/j.physletb.2012.05.020 [arXiv:1203.0718 [hep-ex]].
- [648] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for FCNC single top-quark production at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **712**, 351 (2012) doi:10.1016/j.physletb.2012.05.022 [arXiv:1203.0529 [hep-ex]].
- [649] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the azimuthal ordering of charged hadrons with the ATLAS detector,” *Phys. Rev. D* **86**, 052005 (2012) doi:10.1103/PhysRevD.86.052005 [arXiv:1203.0419 [hep-ex]].
- [650] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for down-type fourth generation quarks with the ATLAS detector in events with one lepton and hadronically decaying  $W$  bosons,” *Phys. Rev. Lett.* **109**, 032001 (2012) doi:10.1103/PhysRevLett.109.032001 [arXiv:1202.6540 [hep-ex]].
- [651] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for same-sign top-quark production and fourth-generation down-type quarks in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *JHEP* **1204**, 069 (2012) doi:10.1007/JHEP04(2012)069 [arXiv:1202.5520 [hep-ex]].
- [652] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the cross section for top-quark pair production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector using final states with two high-pt leptons,” *JHEP* **1205**, 059 (2012) doi:10.1007/JHEP05(2012)059 [arXiv:1202.4892 [hep-ex]].
- [653] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for anomaly-mediated supersymmetry breaking with the ATLAS detector based on a disappearing-track signature in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Eur. Phys. J. C* **72**, 1993 (2012) doi:10.1140/epjc/s10052-012-1993-2 [arXiv:1202.4847 [hep-ex]].
- [654] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair-produced heavy quarks decaying to  $Wq$  in the two-lepton channel at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. D* **86**, 012007 (2012) doi:10.1103/PhysRevD.86.012007 [arXiv:1202.3389 [hep-ex]].
- [655] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of a heavy up-type quark decaying to a  $W$  boson and a  $b$  quark in the lepton+jets channel with the ATLAS detector,” *Phys. Rev. Lett.* **108**, 261802 (2012) doi:10.1103/PhysRevLett.108.261802 [arXiv:1202.3076 [hep-ex]].
- [656] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson in the decay channel  $H \rightarrow ZZ^{(*)} \rightarrow 4\ell$  with  $4.8 \text{ fb}^{-1}$  of  $pp$  collision data at  $\sqrt{s} = 7$  TeV with ATLAS,” *Phys. Lett. B* **710**, 383 (2012) doi:10.1016/j.physletb.2012.03.005 [arXiv:1202.1415 [hep-ex]].
- [657] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson in the diphoton decay channel with  $4.9 \text{ fb}^{-1}$  of  $pp$  collisions at  $\sqrt{s} = 7$  TeV with ATLAS,” *Phys. Rev. Lett.* **108**, 111803 (2012) doi:10.1103/PhysRevLett.108.111803 [arXiv:1202.1414 [hep-ex]].
- [658] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Combined search for the Standard Model Higgs boson using up to  $4.9 \text{ fb}^{-1}$  of  $pp$  collision data at  $\sqrt{s} = 7$  TeV with the ATLAS detector at the LHC,” *Phys. Lett. B* **710**, 49 (2012) doi:10.1016/j.physletb.2012.02.044 [arXiv:1202.1408 [hep-ex]].
- [659] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for decays of stopped, long-lived particles from 7 TeV  $pp$  collisions with the ATLAS detector,” *Eur. Phys. J. C* **72**, 1965 (2012) doi:10.1140/epjc/s10052-012-1965-6 [arXiv:1201.5595 [hep-ex]].
- [660] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for excited leptons in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. D* **85**, 072003 (2012) doi:10.1103/PhysRevD.85.072003 [arXiv:1201.3293 [hep-ex]].
- [661] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Rapidity gap cross sections measured with the ATLAS detector

- in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Eur. Phys. J. C* **72**, 1926 (2012) doi:10.1140/epjc/s10052-012-1926-0 [arXiv:1201.2808 [hep-ex]].
- [662] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top quark pair production cross-section with ATLAS in the single lepton channel,” *Phys. Lett. B* **711**, 244 (2012) doi:10.1016/j.physletb.2012.03.083 [arXiv:1201.1889 [hep-ex]].
- [663] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of jets produced in association with a  $W$  boson in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. D* **85**, 092002 (2012) doi:10.1103/PhysRevD.85.092002 [arXiv:1201.1276 [hep-ex]].
- [664] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for anomalous production of prompt like-sign muon pairs and constraints on physics beyond the Standard Model with the ATLAS detector,” *Phys. Rev. D* **85**, 032004 (2012) doi:10.1103/PhysRevD.85.032004 [arXiv:1201.1091 [hep-ex]].
- [665] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A particle consistent with the Higgs Boson observed with the ATLAS Detector at the Large Hadron Collider,” *Science* **338**, 1576 (2012). doi:10.1126/science.1232005
- [666] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Jet energy measurement with the ATLAS detector in proton-proton collisions at  $\sqrt{s} = 7$  TeV,” *Eur. Phys. J. C* **73**, no. 3, 2304 (2013) doi:10.1140/epjc/s10052-013-2304-2 [arXiv:1112.6426 [hep-ex]].
- [667] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of inclusive jet and dijet production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *Phys. Rev. D* **86**, 014022 (2012) doi:10.1103/PhysRevD.86.014022 [arXiv:1112.6297 [hep-ex]].
- [668] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy vector-like quarks coupling to light quarks in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **712**, 22 (2012) doi:10.1016/j.physletb.2012.03.082 [arXiv:1112.5755 [hep-ex]].
- [669] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Observation of a new  $\chi_b$  state in radiative transitions to  $\Upsilon(1S)$  and  $\Upsilon(2S)$  at ATLAS,” *Phys. Rev. Lett.* **108**, 152001 (2012) doi:10.1103/PhysRevLett.108.152001 [arXiv:1112.5154 [hep-ex]].
- [670] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for first generation scalar leptoquarks in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **709**, 158 (2012) Erratum: [*Phys. Lett. B* **711**, 442 (2012)] doi:10.1016/j.physletb.2012.03.023, 10.1016/j.physletb.2012.02.004 [arXiv:1112.4828 [hep-ex]].
- [671] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $D^{*+/-}$  meson production in jets from  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. D* **85**, 052005 (2012) doi:10.1103/PhysRevD.85.052005 [arXiv:1112.4432 [hep-ex]].
- [672] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for contact interactions in dilepton events from  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **712**, 40 (2012) doi:10.1016/j.physletb.2012.04.026 [arXiv:1112.4462 [hep-ex]].
- [673] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for scalar bottom quark pair production with the ATLAS detector in  $pp$  Collisions at  $\sqrt{s} = 7$  TeV,” *Phys. Rev. Lett.* **108**, 181802 (2012) doi:10.1103/PhysRevLett.108.181802 [arXiv:1112.3832 [hep-ex]].
- [674] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for production of resonant states in the photon-jet mass distribution using  $pp$  collisions at  $\sqrt{s} = 7$  TeV collected by the ATLAS detector,” *Phys. Rev. Lett.* **108**, 211802 (2012) doi:10.1103/PhysRevLett.108.211802 [arXiv:1112.3580 [hep-ex]].
- [675] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Higgs boson in the  $H \rightarrow WW^{(*)} \rightarrow \ell^+ \nu \ell^- \bar{\nu}$  decay channel in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. Lett.* **108**, 111802 (2012) doi:10.1103/PhysRevLett.108.111802 [arXiv:1112.2577 [hep-ex]].
- [676] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for extra dimensions using diphoton events in 7 TeV proton-proton collisions with the ATLAS detector,” *Phys. Lett. B* **710**, 538 (2012) doi:10.1016/j.physletb.2012.03.022 [arXiv:1112.2194 [hep-ex]].
- [677] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $W^\pm Z$  production cross section and limits on anomalous triple gauge couplings in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **709**, 341 (2012) doi:10.1016/j.physletb.2012.02.053 [arXiv:1111.5570 [hep-ex]].
- [678] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for diphoton events with large missing transverse momentum in  $1 \text{ fb}^{-1}$  of 7 TeV proton-proton collision data with the ATLAS detector,” *Phys. Lett. B* **710**, 519 (2012) doi:10.1016/j.physletb.2012.02.054 [arXiv:1111.4116 [hep-ex]].
- [679] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production cross section for  $Z/\gamma^*$  in association with jets in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. D* **85**, 032009 (2012) doi:10.1103/PhysRevD.85.032009 [arXiv:1111.2690 [hep-ex]].
- [680] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “ $K_S^0$  and  $\Lambda$  production in  $pp$  interactions at  $\sqrt{s} = 0.9$  and 7 TeV measured with the ATLAS detector at the LHC,” *Phys. Rev. D* **85**, 012001 (2012) doi:10.1103/PhysRevD.85.012001 [arXiv:1111.1297 [hep-ex]].
- [681] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for strong gravity signatures in same-sign dimuon final states using the ATLAS detector at the LHC,” *Phys. Lett. B* **709**, 322 (2012) doi:10.1016/j.physletb.2012.02.049 [arXiv:1111.0080 [hep-ex]].
- [682] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A study of the material in the ATLAS inner detector using secondary hadronic interactions,” *JINST* **7**, P01013 (2012) doi:10.1088/1748-0221/7/01/P01013 [arXiv:1110.6191 [hep-

- ex]].
- [683] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Searches for supersymmetry with the ATLAS detector using final states with two leptons and missing transverse momentum in  $\sqrt{s} = 7$  TeV proton-proton collisions,” *Phys. Lett. B* **709**, 137 (2012) doi:10.1016/j.physletb.2012.01.076 [arXiv:1110.6189 [hep-ex]].
  - [684] M. V. Chizhov, V. A. Bednyakov, I. R. Boyko, J. A. Budagov, M. A. Demichev and I. V. Yeletsikh, “First LHC Constraints on Anomalously Interacting New Vector Bosons,” doi:10.1142/9789814436830\_0008 arXiv:1110.5533 [hep-ph].
  - [685] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $ZZ$  production cross section and limits on anomalous neutral triple gauge couplings in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. Lett.* **108**, 041804 (2012) doi:10.1103/PhysRevLett.108.041804 [arXiv:1110.5016 [hep-ex]].
  - [686] M. V. Chizhov, V. A. Bednyakov, I. R. Boyko, J. A. Budagov, M. A. Demichev and I. V. Yeletsikh, “Anomalously interacting new extra vector bosons and their first LHC constraints,” *Phys. Part. Nucl.* **43**, 311 (2012) doi:10.1134/S1063779612030021 [arXiv:1110.3149 [hep-ph]].
  - [687] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Electron performance measurements with the ATLAS detector using the 2010 LHC proton-proton collision data,” *Eur. Phys. J. C* **72**, 1909 (2012) doi:10.1140/epjc/s10052-012-1909-1 [arXiv:1110.3174 [hep-ex]].
  - [688] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Massive Colored Scalars in Four-Jet Final States in  $\sqrt{s} = 7$  TeV proton-proton collisions with the ATLAS Detector,” *Eur. Phys. J. C* **71**, 1828 (2011) doi:10.1140/epjc/s10052-011-1828-6 [arXiv:1110.2693 [hep-ex]].
  - [689] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena in final states with large jet multiplicities and missing transverse momentum using  $\sqrt{s} = 7$  TeV  $pp$  collisions with the ATLAS detector,” *JHEP* **1111**, 099 (2011) doi:10.1007/JHEP11(2011)099 [arXiv:1110.2299 [hep-ex]].
  - [690] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of the ATLAS Trigger System in 2010,” *Eur. Phys. J. C* **72**, 1849 (2012) doi:10.1140/epjc/s10052-011-1849-1 [arXiv:1110.1530 [hep-ex]].
  - [691] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive and dijet cross-sections of  $b^-$  jets in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **71**, 1846 (2011) doi:10.1140/epjc/s10052-011-1846-4 [arXiv:1109.6833 [hep-ex]].
  - [692] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in final states with jets, missing transverse momentum and one isolated lepton in  $\sqrt{s} = 7$  TeV  $pp$  collisions using  $1\text{ fb}^{-1}$  of ATLAS data,” *Phys. Rev. D* **85**, no. 1, 012006 (2012) Erratum: [*Phys. Rev. D* **87**, 099903 (2013)] doi:10.1103/PhysRevD.85.012006, 10.1103/PhysRevD.87.099903 [arXiv:1109.6606 [hep-ex]].
  - [693] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for squarks and gluinos using final states with jets and missing transverse momentum with the ATLAS detector in  $\sqrt{s} = 7$  TeV proton-proton collisions,” *Phys. Lett. B* **710**, 67 (2012) doi:10.1016/j.physletb.2012.02.051 [arXiv:1109.6572 [hep-ex]].
  - [694] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson in the decay channel  $H \rightarrow ZZ^{(*)} \rightarrow 4\ell$  with the ATLAS detector,” *Phys. Lett. B* **705**, 435 (2011) doi:10.1016/j.physletb.2011.10.034 [arXiv:1109.5945 [hep-ex]].
  - [695] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the jet fragmentation function and transverse profile in proton-proton collisions at a center-of-mass energy of 7 TeV with the ATLAS detector,” *Eur. Phys. J. C* **71**, 1795 (2011) doi:10.1140/epjc/s10052-011-1795-y [arXiv:1109.5816 [hep-ex]].
  - [696] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive  $W^\pm$  and  $Z/\gamma$  cross sections in the electron and muon decay channels in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. D* **85**, 072004 (2012) doi:10.1103/PhysRevD.85.072004 [arXiv:1109.5141 [hep-ex]].
  - [697] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for New Phenomena in  $t\bar{t}$  Events With Large Missing Transverse Momentum in Proton-Proton Collisions at  $\sqrt{s} = 7$  TeV with the ATLAS Detector,” *Phys. Rev. Lett.* **108**, 041805 (2012) doi:10.1103/PhysRevLett.108.041805 [arXiv:1109.4725 [hep-ex]].
  - [698] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Higgs boson in the  $H \rightarrow WW \rightarrow \ell\nu jj$  decay channel in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. Lett.* **107**, 231801 (2011) doi:10.1103/PhysRevLett.107.231801 [arXiv:1109.3615 [hep-ex]].
  - [699] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a Standard Model Higgs boson in the  $H \rightarrow ZZ \rightarrow \ell^+\ell^-\nu\bar{\nu}$  decay channel with the ATLAS detector,” *Phys. Rev. Lett.* **107**, 221802 (2011) doi:10.1103/PhysRevLett.107.221802 [arXiv:1109.3357 [hep-ex]].
  - [700] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a heavy neutral particle decaying into an electron and a muon using  $1\text{ fb}^{-1}$  of ATLAS data,” *Eur. Phys. J. C* **71**, 1809 (2011) doi:10.1140/epjc/s10052-011-1809-9 [arXiv:1109.3089 [hep-ex]].
  - [701] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for displaced vertices arising from decays of new heavy particles in 7 TeV  $pp$  collisions at ATLAS,” *Phys. Lett. B* **707**, 478 (2012) doi:10.1016/j.physletb.2011.12.057 [arXiv:1109.2242 [hep-ex]].
  - [702] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the cross-section for  $b$ -jets produced in association with a  $Z$  boson at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **706**, 295 (2012) doi:10.1016/j.physletb.2011.11.059 [arXiv:1109.1403 [hep-ex]].
  - [703] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the cross section for the production of a  $W$  boson in association with  $b^-$  jets in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **707**, 418 (2012) doi:10.1016/j.physletb.2011.12.046 [arXiv:1109.1470 [hep-ex]].



- [704] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of the electron and muon inclusive cross-sections in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **707**, 438 (2012) doi:10.1016/j.physletb.2011.12.054 [arXiv:1109.0525 [hep-ex]].
- [705] M. V. Chizhov, V. A. Bednyakov and J. A. Budagov, “On resonance search in dilepton events at the LHC,” *Phys. Part. Nucl. Lett.* **10**, 144 (2013) doi:10.1134/S1547477113020052 [arXiv:1109.6876 [hep-ph]].
- [706] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for New Physics in the Dijet Mass Distribution using  $1 \text{ fb}^{-1}$  of  $pp$  Collision Data at  $\sqrt{s} = 7$  TeV collected by the ATLAS Detector,” *Phys. Lett. B* **708**, 37 (2012) doi:10.1016/j.physletb.2012.01.035 [arXiv:1108.6311 [hep-ex]].
- [707] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the Transverse Momentum Distribution of  $W$  Bosons in  $pp$  Collisions at  $\sqrt{s} = 7$  TeV with the ATLAS Detector,” *Phys. Rev. D* **85**, 012005 (2012) doi:10.1103/PhysRevD.85.012005 [arXiv:1108.6308 [hep-ex]].
- [708] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the centrality dependence of the charged particle pseudorapidity distribution in lead-lead collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector,” *Phys. Lett. B* **710**, 363 (2012) doi:10.1016/j.physletb.2012.02.045 [arXiv:1108.6027 [hep-ex]].
- [709] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the pseudorapidity and transverse momentum dependence of the elliptic flow of charged particles in lead-lead collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector,” *Phys. Lett. B* **707**, 330 (2012) doi:10.1016/j.physletb.2011.12.056 [arXiv:1108.6018 [hep-ex]].
- [710] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for the Standard Model Higgs boson in the two photon decay channel with the ATLAS detector at the LHC,” *Phys. Lett. B* **705**, 452 (2011) doi:10.1016/j.physletb.2011.10.051 [arXiv:1108.5895 [hep-ex]].
- [711] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Performance of Missing Transverse Momentum Reconstruction in Proton-Proton Collisions at 7 TeV with ATLAS,” *Eur. Phys. J. C* **72**, 1844 (2012) doi:10.1140/epjc/s10052-011-1844-6 [arXiv:1108.5602 [hep-ex]].
- [712] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a heavy Standard Model Higgs boson in the channel  $H \rightarrow ZZ \rightarrow \ell^+ \ell^- q\bar{q}$  using the ATLAS detector,” *Phys. Lett. B* **707**, 27 (2012) doi:10.1016/j.physletb.2011.11.056 [arXiv:1108.5064 [hep-ex]].
- [713] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “A measurement of the ratio of the  $W$  and  $Z$  cross sections with exactly one associated jet in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with ATLAS,” *Phys. Lett. B* **708**, 221 (2012) doi:10.1016/j.physletb.2012.01.042 [arXiv:1108.4908 [hep-ex]].
- [714] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $W \rightarrow \tau\nu_\tau$  cross section in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS experiment,” *Phys. Lett. B* **706**, 276 (2012) doi:10.1016/j.physletb.2011.11.057 [arXiv:1108.4101 [hep-ex]].
- [715] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top quark pair production cross section in  $pp$  collisions at  $\sqrt{s} = 7$  TeV in dilepton final states with ATLAS,” *Phys. Lett. B* **707**, 459 (2012) doi:10.1016/j.physletb.2011.12.055 [arXiv:1108.3699 [hep-ex]].
- [716] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $Z$  to tau tau Cross Section with the ATLAS Detector,” *Phys. Rev. D* **84**, 112006 (2011) doi:10.1103/PhysRevD.84.112006 [arXiv:1108.2016 [hep-ex]].
- [717] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for dilepton resonances in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. Lett.* **107**, 272002 (2011) doi:10.1103/PhysRevLett.107.272002 [arXiv:1108.1582 [hep-ex]].
- [718] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a heavy gauge boson decaying to a charged lepton and a neutrino in  $1 \text{ fb}^{-1}$  of  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *Phys. Lett. B* **705**, 28 (2011) doi:10.1016/j.physletb.2011.09.093 [arXiv:1108.1316 [hep-ex]].
- [719] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Inclusive search for same-sign dilepton signatures in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *JHEP* **1110**, 107 (2011) doi:10.1007/JHEP10(2011)107 [arXiv:1108.0366 [hep-ex]].
- [720] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive isolated prompt photon cross-section in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using  $35 \text{ pb}^{-1}$  of ATLAS data,” *Phys. Lett. B* **706**, 150 (2011) doi:10.1016/j.physletb.2011.11.010 [arXiv:1108.0253 [hep-ex]].
- [721] M. V. Chizhov, “A Boost for a Whole Life,” *Bulg. J. Phys.* **38**, 227-231 (2011).
- [722] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for neutral MSSM Higgs bosons decaying to  $\tau^+ \tau^-$  pairs in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **705**, 174 (2011) doi:10.1016/j.physletb.2011.10.001 [arXiv:1107.5003 [hep-ex]].
- [723] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Properties of jets measured from tracks in proton-proton collisions at center-of-mass energy  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. D* **84**, 054001 (2011) doi:10.1103/PhysRevD.84.054001 [arXiv:1107.3311 [hep-ex]].
- [724] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the transverse momentum distribution of  $Z/\gamma^*$  bosons in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **705**, 415 (2011) doi:10.1016/j.physletb.2011.10.018 [arXiv:1107.2381 [hep-ex]].
- [725] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of multi-jet cross sections in proton-proton collisions at a 7 TeV center-of-mass energy,” *Eur. Phys. J. C* **71**, 1763 (2011) doi:10.1140/epjc/s10052-011-1763-6 [arXiv:1107.2092 [hep-ex]].
- [726] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of dijet production with a veto on additional central jet activity in  $pp$  collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector,” *JHEP* **1109**, 053 (2011)

- doi:10.1007/JHEP09(2011)053 [arXiv:1107.1641 [hep-ex]].
- [727] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Diphoton Events with Large Missing Transverse Energy with  $36 \text{ pb}^{-1}$  of 7 TeV Proton-Proton Collision Data with the ATLAS Detector,” *Eur. Phys. J. C* **71**, 1744 (2011) doi:10.1140/epjc/s10052-011-1744-9 [arXiv:1107.0561 [hep-ex]].
- [728] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the isolated di-photon cross-section in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. D* **85**, 012003 (2012) doi:10.1103/PhysRevD.85.012003 [arXiv:1107.0581 [hep-ex]].
- [729] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $\Upsilon(1S)$  production cross-section in  $pp$  collisions at  $\sqrt{s} = 7$  TeV in ATLAS,” *Phys. Lett. B* **705**, 9 (2011) doi:10.1016/j.physletb.2011.09.092 [arXiv:1106.5325 [hep-ex]].
- [730] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for new phenomena with the monojet and missing transverse momentum signature using the ATLAS detector in  $\sqrt{s} = 7$  TeV proton-proton collisions,” *Phys. Lett. B* **705**, 294 (2011) doi:10.1016/j.physletb.2011.10.006 [arXiv:1106.5327 [hep-ex]].
- [731] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for heavy long-lived charged particles with the ATLAS detector in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Phys. Lett. B* **703**, 428 (2011) doi:10.1016/j.physletb.2011.08.042 [arXiv:1106.4495 [hep-ex]].
- [732] M. V. Chizhov, V. A. Bednyakov and J. A. Budagov, “On Resonance Search in Dijet Events at the LHC,” arXiv:1106.4161 [hep-ph].
- [733] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Limits on the production of the Standard Model Higgs Boson in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Eur. Phys. J. C* **71**, 1728 (2011) doi:10.1140/epjc/s10052-011-1728-9 [arXiv:1106.2748 [hep-ex]].
- [734] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of  $W$ gamma and  $Z$ gamma production in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS Detector,” *JHEP* **1109**, 072 (2011) doi:10.1007/JHEP09(2011)072 [arXiv:1106.1592 [hep-ex]].
- [735] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $WW$  cross section in  $\sqrt{s} = 7$  TeV  $pp$  collisions with ATLAS,” *Phys. Rev. Lett.* **107**, 041802 (2011) doi:10.1103/PhysRevLett.107.041802 [arXiv:1104.5225 [hep-ex]].
- [736] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Contact Interactions in Dimuon Events from  $pp$  Collisions at  $\sqrt{s} = 7$  TeV with the ATLAS Detector,” *Phys. Rev. D* **84**, 011101 (2011) doi:10.1103/PhysRevD.84.011101 [arXiv:1104.4398 [hep-ex]].
- [737] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for pair production of first or second generation leptoquarks in proton-proton collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector at the LHC,” *Phys. Rev. D* **83**, 112006 (2011) doi:10.1103/PhysRevD.83.112006 [arXiv:1104.4481 [hep-ex]].
- [738] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the differential cross-sections of inclusive, prompt and non-prompt  $J/\psi$  production in proton-proton collisions at  $\sqrt{s} = 7$  TeV,” *Nucl. Phys. B* **850**, 387 (2011) doi:10.1016/j.nuclphysb.2011.05.015 [arXiv:1104.3038 [hep-ex]].
- [739] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the Inelastic Proton-Proton Cross-Section at  $\sqrt{s} = 7$  TeV with the ATLAS Detector,” *Nature Commun.* **2**, 463 (2011) doi:10.1038/ncomms1472 [arXiv:1104.0326 [hep-ex]].
- [740] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for an excess of events with an identical flavour lepton pair and significant missing transverse momentum in  $\sqrt{s} = 7$  TeV proton-proton collisions with the ATLAS detector,” *Eur. Phys. J. C* **71**, 1647 (2011) doi:10.1140/epjc/s10052-011-1647-9 [arXiv:1103.6208 [hep-ex]].
- [741] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetric particles in events with lepton pairs and large missing transverse momentum in  $\sqrt{s} = 7$  TeV proton-proton collisions with the ATLAS experiment,” *Eur. Phys. J. C* **71**, 1682 (2011) doi:10.1140/epjc/s10052-011-1682-6 [arXiv:1103.6214 [hep-ex]].
- [742] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for high mass dilepton resonances in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS experiment,” *Phys. Lett. B* **700**, 163 (2011) doi:10.1016/j.physletb.2011.04.044 [arXiv:1103.6218 [hep-ex]].
- [743] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for a heavy particle decaying into an electron and a muon with the ATLAS detector in  $\sqrt{s} = 7$  TeV  $pp$  collisions at the LHC,” *Phys. Rev. Lett.* **106**, 251801 (2011) doi:10.1103/PhysRevLett.106.251801 [arXiv:1103.5559 [hep-ex]].
- [744] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry in  $pp$  collisions at  $\sqrt{s} = 7$  TeV in final states with missing transverse momentum and  $b$ -jets,” *Phys. Lett. B* **701**, 398 (2011) doi:10.1016/j.physletb.2011.06.015 [arXiv:1103.4344 [hep-ex]].
- [745] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for New Physics in Dijet Mass and Angular Distributions in  $pp$  Collisions at  $\sqrt{s} = 7$  TeV Measured with the ATLAS Detector,” *New J. Phys.* **13**, 053044 (2011) doi:10.1088/1367-2630/13/5/053044 [arXiv:1103.3864 [hep-ex]].
- [746] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $W$  charge asymmetry in the  $W \rightarrow \mu\nu$  decay mode in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **701**, 31 (2011) doi:10.1016/j.physletb.2011.05.024 [arXiv:1103.2929 [hep-ex]].
- [747] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for stable hadronising squarks and gluinos with the ATLAS experiment at the LHC,” *Phys. Lett. B* **701**, 1 (2011) doi:10.1016/j.physletb.2011.05.010 [arXiv:1103.1984 [hep-ex]].
- [748] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurements of underlying-event properties using neutral and charged particles in  $pp$  collisions at 900 GeV and 7 TeV with the ATLAS detector at the LHC,” *Eur. Phys. J. C* **71**, 1636

- (2011) doi:10.1140/epjc/s10052-011-1636-z [arXiv:1103.1816 [hep-ex]].
- [749] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for high-mass states with one lepton plus missing transverse momentum in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **701**, 50 (2011) doi:10.1016/j.physletb.2011.05.043 [arXiv:1103.1391 [hep-ex]].
- [750] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for squarks and gluinos using final states with jets and missing transverse momentum with the ATLAS detector in  $\sqrt{s} = 7$  TeV proton-proton collisions,” *Phys. Lett. B* **701**, 186 (2011) doi:10.1016/j.physletb.2011.05.061 [arXiv:1102.5290 [hep-ex]].
- [751] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of Dijet Azimuthal Decorrelations in  $pp$  Collisions in association with jets in  $pp$  collisions at  $\sqrt{s} = 7$  TeV,” *Phys. Rev. Lett.* **106**, 172002 (2011) doi:10.1103/PhysRevLett.106.172002 [arXiv:1102.2696 [hep-ex]].
- [752] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for supersymmetry using final states with one lepton, jets, and missing transverse momentum with the ATLAS detector in  $\sqrt{s} = 7$  TeV  $pp$ ,” *Phys. Rev. Lett.* **106**, 131802 (2011) doi:10.1103/PhysRevLett.106.131802 [arXiv:1102.2357 [hep-ex]].
- [753] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Massive Long-lived Highly Ionising Particles with the ATLAS Detector at the LHC,” *Phys. Lett. B* **698**, 353 (2011) doi:10.1016/j.physletb.2011.03.033 [arXiv:1102.0459 [hep-ex]].
- [754] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Luminosity Determination in  $pp$  Collisions at  $\sqrt{s} = 7$  TeV Using the ATLAS Detector at the LHC,” *Eur. Phys. J. C* **71**, 1630 (2011) doi:10.1140/epjc/s10052-011-1630-5 [arXiv:1101.2185 [hep-ex]].
- [755] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Study of Jet Shapes in Inclusive Jet Production in  $pp$  Collisions at  $\sqrt{s} = 7$  TeV using the ATLAS Detector,” *Phys. Rev. D* **83**, 052003 (2011) doi:10.1103/PhysRevD.83.052003 [arXiv:1101.0070 [hep-ex]].
- [756] M. V. Chizhov, “Theory and phenomenology of spin-1 chiral particles,” *Phys. Part. Nucl.* **42**, 93 (2011). doi:10.1134/S1063779611010059
- [757] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the production cross section for W-bosons in association with jets in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Lett. B* **698**, 325 (2011) doi:10.1016/j.physletb.2011.03.012 [arXiv:1012.5382 [hep-ex]].
- [758] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the centrality dependence of  $J/\Psi$  yields and observation of Z production in lead-lead collisions with the ATLAS detector at the LHC,” *Phys. Lett. B* **697**, 294 (2011) doi:10.1016/j.physletb.2011.02.006 [arXiv:1012.5419 [hep-ex]].
- [759] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Charged-particle multiplicities in pp interactions measured with the ATLAS detector at the LHC,” *New J. Phys.* **13**, 053033 (2011) doi:10.1088/1367-2630/13/5/053033 [arXiv:1012.5104 [hep-ex]].
- [760] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the inclusive isolated prompt photon cross section in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *Phys. Rev. D* **83**, 052005 (2011) doi:10.1103/PhysRevD.83.052005 [arXiv:1012.4389 [hep-ex]].
- [761] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for Diphoton Events with Large Missing Transverse Energy in 7 TeV Proton-Proton Collisions with the ATLAS Detector,” *Phys. Rev. Lett.* **106**, 121803 (2011) doi:10.1103/PhysRevLett.106.121803 [arXiv:1012.4272 [hep-ex]].
- [762] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the top quark-pair production cross section with ATLAS in pp collisions at  $\sqrt{s} = 7$  TeV,” *Eur. Phys. J. C* **71**, 1577 (2011) doi:10.1140/epjc/s10052-011-1577-6 [arXiv:1012.1792 [hep-ex]].
- [763] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of underlying event characteristics using charged particles in pp collisions at  $\sqrt{s} = 900\text{GeV}$  and 7 TeV with the ATLAS detector,” *Phys. Rev. D* **83**, 112001 (2011) doi:10.1103/PhysRevD.83.112001 [arXiv:1012.0791 [hep-ex]].
- [764] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Studies of the performance of the ATLAS detector using cosmic-ray muons,” *Eur. Phys. J. C* **71**, 1593 (2011) doi:10.1140/epjc/s10052-011-1593-6 [arXiv:1011.6665 [physics.ins-det]].
- [765] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Observation of a Centrality-Dependent Dijet Asymmetry in Lead-Lead Collisions at  $\sqrt{s_{NN}} = 2.77$  TeV with the ATLAS Detector at the LHC,” *Phys. Rev. Lett.* **105**, 252303 (2010) doi:10.1103/PhysRevLett.105.252303 [arXiv:1011.6182 [hep-ex]].
- [766] M. V. Chizhov, V. A. Bednyakov and J. A. Budagov, “A unique signal of excited bosons in dijet data from pp-collisions,” *Phys. Atom. Nucl.* **75**, 90 (2012) doi:10.1134/S1063778812010061 [arXiv:1010.2648 [hep-ph]].
- [767] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of the  $W \rightarrow \ell\nu$  and  $Z/\gamma^* \rightarrow \ell\ell$  production cross sections in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector,” *JHEP* **1012**, 060 (2010) doi:10.1007/JHEP12(2010)060 [arXiv:1010.2130 [hep-ex]].
- [768] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Measurement of inclusive jet and dijet cross sections in proton-proton collisions at 7 TeV centre-of-mass energy with the ATLAS detector,” *Eur. Phys. J. C* **71**, 1512 (2011) doi:10.1140/epjc/s10052-010-1512-2 [arXiv:1009.5908 [hep-ex]].
- [769] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for quark contact interactions in dijet angular distributions in  $pp$  collisions at  $\sqrt{s} = 7$  TeV measured with the ATLAS detector,” *Phys. Lett. B* **694**, 327 (2011) doi:10.1016/j.physletb.2010.10.021 [arXiv:1009.5069 [hep-ex]].
- [770] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Search for New Particles in Two-Jet Final States in 7 TeV Proton-Proton Collisions with the ATLAS Detector at the LHC,” *Phys. Rev. Lett.* **105**, 161801 (2010) doi:10.1103/PhysRevLett.105.161801 [arXiv:1008.2461 [hep-ex]].
- [771] M. V. Chizhov, “A Reference Model for Anomalously Interacting Bosons,” *Phys. Part. Nucl. Lett.* **8**, 512 (2011)

- doi:10.1134/S1547477111060045 [arXiv:1005.4287 [hep-ph]].
- [772] M. V. Chizhov, V. A. Bednyakov and J. A. Budagov, “Anomalous interacting extra neutral bosons,” *Nuovo Cim. C* **033N5**, 343 (2010) doi:10.1393/ncc/i2011-10735-y [arXiv:1005.2728 [hep-ph]].
- [773] D. Kirilova and M. Chizhov, “BBN constraints on neutrino and CNB,” *Prog. Part. Nucl. Phys.* **64**, 375 (2010). doi:10.1016/j.pnpnp.2009.12.052
- [774] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Drift Time Measurement in the ATLAS Liquid Argon Electromagnetic Calorimeter using Cosmic Muons,” *Eur. Phys. J. C* **70**, 755 (2010) doi:10.1140/epjc/s10052-010-1403-6 [arXiv:1002.4189 [physics.ins-det]].
- [775] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Readiness of the ATLAS Liquid Argon Calorimeter for LHC Collisions,” *Eur. Phys. J. C* **70**, 723 (2010) doi:10.1140/epjc/s10052-010-1354-y [arXiv:0912.2642 [physics.ins-det]].
- [776] M. V. Chizhov and G. Dvali, “Origin and Phenomenology of Weak-Doublet Spin-1 Bosons,” *Phys. Lett. B* **703**, 593 (2011) doi:10.1016/j.physletb.2011.08.056 [arXiv:0908.0924 [hep-ph]].
- [777] M. V. Chizhov and D. P. Kirilova, “Speeding the Friedmann expansion by chiral tensor particles,” *Int. J. Mod. Phys. A* **24**, 1643 (2009). doi:10.1142/S0217751X09045157
- [778] G. Aad, ..., M.V. Chizhov *et al.* [ATLAS Collaboration], “Triggering on Long-Lived Neutral Particles in the ATLAS Detector,” ATL-PHYS-PUB-2009-082, ATL-COM-PHYS-2009-233.
- [779] M. V. Chizhov and D. P. Kirilova, “Chiral tensor particles in the early Universe,” arXiv:0903.4180 [astro-ph.CO].
- [780] M. V. Chizhov, “Disentangling between  $Z'$  and  $Z^*$  with first LHC data,” arXiv:0807.5087 [hep-ph].
- [781] M. G. Catanesi, ..., M.V. Chizhov *et al.*, “Absolute momentum calibration of the HARP TPC,” *JINST* **3**, P04007 (2008). doi:10.1088/1748-0221/3/04/P04007
- [782] M. V. Chizhov, “Sensitivity to new physics:  $a_e$  versus  $a_\mu$ ,” *Phys. Part. Nucl. Lett.* **6**, 361 (2009) doi:10.1134/S1547477109050021 [arXiv:0805.4313 [hep-ph]].
- [783] M. G. Catanesi, ..., M.V. Chizhov *et al.* [HARP Collaboration], “Large-angle production of charged pions with 3-12.9-GeV/c incident protons on nuclear targets,” *Phys. Rev. C* **77**, 055207 (2008) doi:10.1103/PhysRevC.77.055207 [arXiv:0805.2871 [hep-ex]].
- [784] M. G. Catanesi, ..., M.V. Chizhov *et al.* [HARP Collaboration], “Measurement of the production cross-sections of  $\pi^\pm$  in p-C and  $\pi^\pm$ -C interactions at 12 GeV/c,” *Astropart. Phys.* **29**, 257 (2008) doi:10.1016/j.astropartphys.2008.02.002 [arXiv:0802.0657 [astro-ph]].
- [785] M. V. Chizhov, V. A. Bednyakov and J. A. Budagov, “Proposal for chiral bosons search at LHC via their unique new signature,” *Phys. Atom. Nucl.* **71**, 2096 (2008) doi:10.1134/S1063778808120107 [arXiv:0801.4235 [hep-ph]].
- [786] M. V. Chizhov, “Can we use hadronic tau decay for V(us) determination,” arXiv:0712.3025 [hep-ph].
- [787] E. Eskut, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Final results on  $\nu_\mu \rightarrow \nu_\tau$  oscillation from the CHORUS experiment,” *Nucl. Phys. B* **793**, 326 (2008) doi:10.1016/j.nuclphysb.2007.10.023 [arXiv:0710.3361 [hep-ex]].
- [788] M. G. Catanesi, ..., M.V. Chizhov *et al.* [HARP Collaboration], “Large-angle production of charged pions by 3-GeV/c - 12-GeV/c protons on carbon, copper and tin targets,” *Eur. Phys. J. C* **53**, 177 (2008) doi:10.1140/epjc/s10052-007-0475-4 [arXiv:0709.3464 [hep-ex]].
- [789] M. G. Catanesi, ..., M.V. Chizhov *et al.* [HARP Collaboration], “Large-angle production of charged pions by 3-GeV/c - 12.9-GeV/c protons on beryllium, aluminium and lead targets,” *Eur. Phys. J. C* **54**, 37 (2008) doi:10.1140/epjc/s10052-007-0517-y [arXiv:0709.3458 [hep-ex]].
- [790] M. G. Catanesi, ..., M.V. Chizhov *et al.* [HARP Collaboration], “Momentum scale in the HARP TPC,” arXiv:0709.2806 [physics.ins-det].
- [791] M. V. Chizhov, “The ILC energy requirements from the constraints on new boson production at the Tevatron,” *eConf C* **0705302**, TEV09 (2007) [arXiv:0709.2411 [hep-ph]].
- [792] M. G. Catanesi, ..., M.V. Chizhov *et al.* [HARP Collaboration], “Measurement of the production of charged pions by protons on a tantalum target,” *Eur. Phys. J. C* **51**, 787 (2007) doi:10.1140/epjc/s10052-007-0361-0 [arXiv:0706.1600 [hep-ex]].
- [793] M. V. Chizhov, “Heavy chiral bosons search at hadron colliders,” arXiv:0705.3944 [hep-ph].
- [794] M. V. Chizhov, “On the CVC violation in weak decays,” *Phys. Atom. Nucl.* **70**, 123 (2007). doi:10.1134/S1063778807010139
- [795] M. G. Catanesi, ..., M.V. Chizhov *et al.*, “Particle identification algorithms for the HARP forward spectrometer,” *Nucl. Instrum. Meth. A* **572**, 899 (2007). doi:10.1016/j.nima.2006.11.071
- [796] M. G. Catanesi, ..., M.V. Chizhov *et al.* [HARP Collaboration], “Measurement of the production cross-section of positive pions in the collision of 8.9-GeV/c protons on beryllium,” *Eur. Phys. J. C* **52**, 29 (2007) doi:10.1140/epjc/s10052-007-0382-8 [hep-ex/0702024].
- [797] M. G. Catanesi, ..., M.V. Chizhov *et al.* [HARP Collaboration], “The HARP detector at the CERN PS,” *Nucl. Instrum. Meth. A* **571**, 527 (2007). doi:10.1016/j.nima.2006.08.132
- [798] M. V. Chizhov, “Production of new chiral bosons at Tevatron and LHC,” hep-ph/0609141.
- [799] M. V. Chizhov, “On  $V_{ud}$  determination from kaon decays,” *JHEP* **0702**, 045 (2007) doi:10.1088/1126-6708/2007/02/045 [hep-ph/0609032].
- [800] M. G. Catanesi, ..., M.V. Chizhov *et al.* [HARP Collaboration], “Measurement of the production cross-section of positive pions in p-Al collisions at 12.9-GeV/c,” *Nucl. Phys. B* **732**, 1 (2006) doi:10.1016/j.nuclphysb.2005.10.016 [hep-ex/0510039].
- [801] G. Onengut, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Measurement of fragmentation properties of charmed particle production in charged-current neutrino interactions,” *Phys. Lett. B* **604**, 145 (2004). doi:10.1016/j.physletb.2004.11.001
- [802] M. V. Chizhov, “On  $V_{ud}$  determination from neutron decay,” hep-ph/0411098.

- [803] A. Kayis-Topaksu, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Experimental study of trimuon events in neutrino charged-current interactions,” *Phys. Lett. B* **596**, 44 (2004). doi:10.1016/j.physletb.2004.06.081
- [804] M. V. Chizhov, “Predictions for energy distribution and polarization of the positron from the polarized muon decay,” hep-ph/0405073.
- [805] M. V. Chizhov, “Discovery of new physics in radiative pion decays?,” *Phys. Part. Nucl. Lett.* **2**, 193 (2005) [Pisma Fiz. Elem. Chast. Atom. Yadra **2005**, no. 4, 7 (2005)] [hep-ph/0402105].
- [806] G. Onengut, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Measurement of charm production in antineutrino charged-current interactions,” *Phys. Lett. B* **604**, 11 (2004). doi:10.1016/j.physletb.2004.10.037
- [807] M. V. Chizhov, “On the CVC problem in tau decay,” hep-ph/0311360.
- [808] M. V. Chizhov, “New interactions in the radiative pion decay,” hep-ph/0310203.
- [809] M. V. Chizhov, “Vector meson couplings to vector and tensor currents in extended NJL quark model,” *JETP Lett.* **80**, 73 (2004) [Pisma Zh. Eksp. Teor. Fiz. **80**, 81 (2004)] doi:10.1134/1.1804212 [hep-ph/0307100].
- [810] A. Kayis-Topaksu, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Measurement of the Z/A dependence of neutrino charged-current total cross-sections,” *Eur. Phys. J. C* **30**, 159 (2003). doi:10.1140/epjc/s2003-01292-3
- [811] A. Kayis-Topaksu, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Cross-section measurement for quasi-elastic production of charmed baryons in  $\nu N$  interactions,” *Phys. Lett. B* **575**, 198 (2003). doi:10.1016/j.physletb.2003.09.056
- [812] A. Kayis-Topaksu, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Measurement of  $\Lambda_c^+$  production in neutrino charged-current interactions,” *Phys. Lett. B* **555**, 156 (2003). doi:10.1016/S0370-2693(03)00045-5
- [813] A. Kayis-Topaksu, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Determination of the semi-leptonic branching fraction of charm hadrons produced in neutrino charged-current interactions,” *Phys. Lett. B* **549**, 48 (2002). doi:10.1016/S0370-2693(02)02865-4
- [814] A. Kayis-Topaksu, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Observation of one event with the characteristics of associated charm production in neutrino charged-current interactions,” *Phys. Lett. B* **539**, 188 (2002). doi:10.1016/S0370-2693(02)02092-0
- [815] A. Kayis-Topaksu, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Measurement of  $D^0$  production in neutrino charged-current interactions,” *Phys. Lett. B* **527**, 173 (2002). doi:10.1016/S0370-2693(02)01173-5
- [816] D. Kirilova and M. Chizhov, “Big bang nucleosynthesis and cosmological constraints on neutrino oscillation parameters,” astro-ph/0108341.
- [817] D. P. Kirilova and M. V. Chizhov, “Large scale structure and baryogenesis,” published in proc. of XXXVIth Rencontres de Moriond on “Galaxy Clusters and the High-Redshift universe observed in X-rays”, eds. J. Tran Thanh Van and Doris M. Neumann, Les Arcs, Savoie, France, March 10-17, 2001.
- [818] M. Chizhov, “Probing matter effects with atmospheric neutrinos,” *Nucl. Phys. Proc. Suppl.* **100**, 133 (2001). doi:10.1016/S0920-5632(01)01427-X
- [819] A. Belyaev, ..., M.V. Chizhov *et al.* [Kaon Physics Working Group], “Kaon physics with a high intensity proton driver,” CERN Yellow Report CERN-2004-002, pp.307-335 doi:10.5170/CERN-2004-002.307 [hep-ph/0107046].
- [820] M. V. Chizhov, “A New mass relation among the hadron vector resonances,” hep-ph/0107025.
- [821] M. G. Catanesi, ..., M.V. Chizhov *et al.*, “Proposal for hadron production measurements using the NA49 detector for use in long-baseline and atmospheric neutrino flux calculations,” CERN-SPSC-2001-017, CERN-SPSC-P-322.
- [822] M. G. Catanesi, ..., M.V. Chizhov *et al.*, “Proposal to study helium induced hadron production for the atmospheric-neutrino flux,” CERN-SPSC-2001-016, CERN-SPSC-P-315-ADD-1.
- [823] M. Chizhov, “The combined mantle-core earth effect on solar and atmospheric neutrino oscillations,” in Proceedings Cairo International Conference on High-Energy Physics (CICHEP 2001), edited by Shaaban Khalil, Qaisar Shafi, Hassan Tallat. Princeton, N.J., Rinton Press, 2001, p.168-174.
- [824] M. Chizhov [CHORUS Collaboration], “CHORUS: Yesterday, today and tomorrow,” in Proceedings Cairo International Conference on High-Energy Physics (CICHEP 2001), edited by Shaaban Khalil, Qaisar Shafi, Hassan Tallat. Princeton, N.J., Rinton Press, 2001, p.96-102.
- [825] E. Eskut, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “Observation of weak neutral current neutrino production of  $J/\psi$ ,” *Phys. Lett. B* **503**, 1 (2001). doi:10.1016/S0370-2693(01)00130-7
- [826] E. Eskut, ..., M.V. Chizhov *et al.* [CHORUS Collaboration], “New results from a search for  $\nu_\mu \rightarrow \nu_\tau$  and  $\nu_e \rightarrow \nu_\tau$  oscillation,” *Phys. Lett. B* **497**, 8 (2001). doi:10.1016/S0370-2693(00)01317-4
- [827] D. Kirilova and M. Chizhov, “Neutrino oscillations in the early universe,” *Nucl. Phys. Proc. Suppl.* **100**, 360 (2001) doi:10.1016/S0920-5632(01)01473-6 [hep-ph/0102114].
- [828] A. Belyaev, M. Chizhov, A. Dorokhov, J. R. Ellis, M. E. Gomez and S. Lola, “Charged lepton flavor violation in kaon decays in supersymmetric theories,” *Eur. Phys. J. C* **22**, 715 (2002) doi:10.1007/s100520100824 [hep-ph/0008276].
- [829] M. V. Chizhov, “On the two kinds of vector particles,” hep-ph/0008187.
- [830] D. Kirilova and M. Chizhov, “Lepton asymmetry effect on neutrino oscillations and primordial He-4,” *AIP Conf. Proc.* **555**, 433 (2001) doi:10.1063/1.1363557 [astro-ph/0101083].
- [831] S. Buontempo, ..., M.V. Chizhov *et al.*, “The compact emulsion spectrometer,” *Nucl. Instrum. Meth. A* **457**, 464 (2001). doi:10.1016/S0168-9002(00)00787-7
- [832] P. Abreu, ..., M.V. Chizhov *et al.* [DELPHI Collaboration], “A Study of the Lorentz structure in tau decays,” *Eur. Phys. J. C* **16**, 229 (2000) doi:10.1007/s100520050017 [hep-ex/0107076].
- [833] M. V. Chizhov and S. T. Petcov, “On the new conditions for a total neutrino conversion in a medium,” hep-ph/0003110.
- [834] M. V. Chizhov and S. T. Petcov, “Reply on the comment on ‘New conditions for a total neutrino conversion in a medium’,” *Phys. Rev. Lett.* **85**, 3979 (2000) doi:10.1103/PhysRevLett.85.3979 [hep-ph/0504247].

- [835] M. G. Catanesi, ..., M.V. Chizhov *et al.*, "Proposal to study hadron production for the neutrino factory and for the atmospheric neutrino flux," CERN-SPSC-99-35, CERN-SPSC-P-315.
- [836] M. V. Chizhov, "A Total neutrino conversion in the earth without a resonance," hep-ph/9909439.
- [837] D. P. Kirilova and M. V. Chizhov, "Cosmological nucleosynthesis and active sterile neutrino oscillations with small mass differences: The Resonant case," Nucl. Phys. B **591**, 457 (2000) doi:10.1016/S0550-3213(00)00541-1 [hep-ph/9909408].
- [838] M. V. Chizhov and D. P. Kirilova, "On neutrino mixing generated lepton asymmetry and the primordial helium-4 abundance," hep-ph/9908525.
- [839] O. Melzer, ..., M.V. Chizhov *et al.*, "Data handling in the CHORUS emulsion experiment at CERN," Tampere conference HEP99, p. 1022-1023, Finland, 1999.
- [840] M. V. Chizhov and S. T. Petcov, "Enhancing mechanisms of neutrino transitions in a medium of nonperiodic constant density layers and in the earth," Phys. Rev. D **63**, 073003 (2001) doi:10.1103/PhysRevD.63.073003 [hep-ph/9903424].
- [841] M. V. Chizhov and S. T. Petcov, "New conditions for a total neutrino conversion in a medium," Phys. Rev. Lett. **83**, 1096 (1999) doi:10.1103/PhysRevLett.83.1096 [hep-ph/9903399].
- [842] M. V. Chizhov and S. T. Petcov, "New mechanism for a total neutrino conversion in a medium of nonperiodic constant density layers and in the earth," Meeting in Honor of Samoil Bilenky's 70th Birthday, Turin, Italy, 25-27 Mar 1999, Proceedings edited by W. M. Alberico, Singapore, World Scientific, 2000, p. 193-210.
- [843] M. V. Chizhov and S. T. Petcov, "New effect of total neutrino conversion in a medium of nonperiodic constant density layers and in the earth," Proceedings of VIII International Workshop on "Neutrino Telescopes", vol. 2, p. 23-34, Venice, February 23-26, 1999.
- [844] P. Seager, I. Boyko, M. Chizhov and P. Ratoff, "A Study of the Lorentz Structure in Tau Decays", CERN preprint DELPHI 99-129 HEP'99 CONF 316, 1999.
- [845] P. Seager, I. Boyko, M. Chizhov and P. Ratoff, "An Investigation of the Lorentz Structure in Tau Decays produced at LEP-1", CERN preprint DELPHI 98-102 ICHEP'98 CONF 170, 1998.
- [846] I. Boyko, M. Chizhov and P. Seager, "A measurement of the Michel parameters and the helicity and limits on tensor couplings in tau lepton decays", CERN preprint DELPHI 98-28 Morio. CONF 124, 1998.
- [847] M. V. Chizhov, "Assembly codes on DSPs", CHORUS internal note 98-009, July 1998.
- [848] A di Bartolomeo, ..., M. V. Chizhov *et al.*, "Status of the Automatic Microscopes at CERN", CHORUS internal note 98-006, June 1998.
- [849] M. Chizhov, M. Maris and S. T. Petcov, "On the oscillation length resonance in the transitions of solar and atmospheric neutrinos crossing the earth core," hep-ph/9810501.
- [850] D. P. Kirilova and M. V. Chizhov, "Neutrino degeneracy effect on neutrino oscillations and primordial helium yield," Nucl. Phys. B **534**, 447 (1998) doi:10.1016/S0550-3213(98)00641-5 [hep-ph/9806441].
- [851] D. P. Kirilova and M. V. Chizhov, "Is there a cosmological evidence for additional particles," Talk given at the Int. Conf. "Our Galaxy", Moscow, SAI, March 1996; Astronomical and Astrophysical Transactions **3**, p. 205-210 (1998).
- [852] D. P. Kirilova and M. V. Chizhov, "Cosmological nucleosynthesis and active sterile neutrino oscillations with small mass differences: The Nonresonant case," Phys. Rev. D **58**, 073004 (1998) doi:10.1103/PhysRevD.58.073004 [hep-ph/9707282].
- [853] M. V. Chizhov, "Could HERA results have been predicted from semileptonic meson decays," hep-ph/9704409.
- [854] M. V. Chizhov, "On the muon decay parameters," hep-ph/9612399.
- [855] M. V. Chizhov, "Tensor excitations in Nambu–Jona-Lasinio model," hep-ph/9610220.
- [856] D. P. Kirilova and M. V. Chizhov, "Nonequilibrium neutrino oscillations and primordial production of He-4," Phys. Lett. B **393**, 375 (1997) doi:10.1016/S0370-2693(96)01626-7 [hep-ph/9608270].
- [857] D. P. Kirilova and M. V. Chizhov, "Nonequilibrium neutrino oscillations and primordial nucleosynthesis," In \*Helsinki 1996, Neutrino physics and astrophysics\* 478-484 [hep-ph/9704269].
- [858] M. V. Chizhov, "Search for tensor interactions in kaon decays at DAΦNE," Phys. Lett. B **381**, 359 (1996) doi:10.1016/0370-2693(96)00535-7 [hep-ph/9511287].
- [859] D. P. Kirilova and M. V. Chizhov, "NonGUT baryogenesis and large scale structure of the universe," Mon. Not. Roy. Astron. Soc. **314**, 256 (2000) doi:10.1046/j.1365-8711.2000.03193.x [astro-ph/9908319].
- [860] M. V. Chizhov, D. P. Kirilova and T. V. Velchev "Antisymmetric Tensor Particles in the Early Universe", Comptes Rendus de l'Académie bulgare des Sciences, Sofia, **48**, No 6, p.25 (1995).
- [861] M. V. Chizhov and D. P. Kirilova, "Generation of  $128h^{-1}$  Mpc periodicity of the universe in the scalar field condensate baryogenesis scenario," Astronomical and Astrophysical Transactions, **10**, p. 69-75 (1996).
- [862] M. V. Chizhov, "On t quark decay," Phys. Lett. B **383**, 105 (1996). doi:10.1016/0370-2693(96)00698-3
- [863] M. V. Chizhov, "Tensor Interactions in Weak Processes", published in Proceedings of 5th Hellenic School and Workshops on Elementary Particle Physics, Corfu, 1995.
- [864] M. V. Chizhov, "Antisymmetric tensor fields," Sov. J. Part. Nucl. **26**, 553 (1995).
- [865] L. V. Avdeev and M. V. Chizhov, "A Queer reduction of degrees of freedom," Phys. Part. Nucl. Lett. **2**, 7 (2005) [Pisma Fiz. Elem. Chast. Atom. Yadra **2005**, no. 2, 17 (2005)] [hep-th/9407067].
- [866] M. V. Chizhov, "New tensor interactions and the  $K_L - K_S$  mass difference," [hep-ph/9407237].
- [867] M. V. Chizhov, "New tensor interactions in mu decay," Mod. Phys. Lett. A **9**, 2979 (1994) doi:10.1142/S0217732394002811 [hep-ph/9407236].
- [868] M. V. Chizhov and D. P. Kirilova, "Non-GUT Baryogenesis and Large Scale Periodicity of the Universe", Proc. Scientific Session Dedicated to 100-th Anniversary of the Sofia University Astronomical Observatory, Sofia, 3-4 October, 1994, Naturela publ., Sofia, 1996, p. 114.
- [869] M. V. Chizhov and D. P. Kirilova, "Baryogenesis and Large Scale Periodicity of the Universe", Abstracts of International

Science Conference "Astrophysics and Cosmology after Gamow", Odessa, Ukraine, 1994, p.27.

- [870] M. V. Chizhov and D. P. Kirilova, "Large scale periodicity of the universe and baryogenesis," Comm. JINR-E2-94-258, Dubna, 1994.
- [871] L. V. Avdeev and M. V. Chizhov, "Antisymmetric tensor matter fields: An Abelian model," Phys. Lett. B **321**, 212 (1994) doi:10.1016/0370-2693(94)90466-9 [hep-th/9312062].
- [872] M. V. Chizhov, "New tensor particles from  $\pi^- \rightarrow e^- \bar{\nu} \gamma$  and  $K^+ \rightarrow \pi^0 e^+ \nu$  decays," Mod. Phys. Lett. A **8**, 2753 (1993) doi:10.1142/S0217732393003147 [hep-ph/0401217].
- [873] M. V. Chizhov and A. D. Dolgov, "Baryogenesis and large scale structure of the universe," Nucl. Phys. B **372**, 521 (1992). doi:10.1016/0550-3213(92)90330-E
- [874] M. V. Chizhov, "Protection of Your Computer from Viruses", Comm. JINR P11-90-313, Dubna, 1990.
- [875] M. V. Chizhov, "Increasing the Performance of the IBM PC-AT", Comm. JINR P11-89-886, Dubna, 1989.
- [876] M. V. Chizhov, "A New Mode of Color Graphic Adapter", Comm. JINR P11-89-872, Dubna, 1989.
- [877] M. V. Chizhov, "A Cursor for the Graphics Mode", Preprint JINR P11-88-264, Dubna, 1988.
- [878] M. V. Chizhov, "Modification of PC BIOS", Inn. No 14259, Dubna, 1989.
- [879] V. F. Bobrakov and M. V. Chizhov, "Hardware and Software for PC High Resolution Graphics", Inn. No 13926, Dubna, 1988.
- [880] M. V. Chizhov and V. A. Karamyshev, "Trace a Multifunction of PC System Board", Inn. No 13656, Dubna, 1988.
- [881] L. V. Avdeev and M. V. Chizhov, "Exact Solution of the Multiflavor Gross-Neveu Model," Phys. Lett. B **184**, 363 (1986).
- [882] A. D. Donkov, R. M. Ibadov, V. G. Kadyshevsky, M. D. Mateev and M. V. Chizhov, "Quantum Field Theory and a New Universal High-energy Scale: Dirac Fields," Nuovo Cim. A **87**, 373 (1985). doi:10.1007/BF02902360
- [883] M. V. Chizhov, "Dynamic Origin Of Wess-zumino Massless Model," Preprint JINR-E2-84-257, Dubna, 1984.
- [884] L. V. Avdeev and M. V. Chizhov, "Dynamical Generation Of Interaction In An Exactly Solvable Model," Phys. Lett. **145B**, 397 (1984). doi:10.1016/0370-2693(84)90067-4
- [885] M. V. Chizhov, "On Substantiation Of The Renormalizability Criterion In Quantum Field Theory," Preprint JINR P2-84-172, Dubna, 1984.
- [886] A. D. Donkov, R. M. Ibadov, V. G. Kadyshevsky, M. D. Mateev and M. V. Chizhov, "Quantum Field Theory and a New Universal High-energy Scale. Gauge Vector Fields," Nuovo Cim. A **87**, 350 (1985). doi:10.1007/BF02902226
- [887] A. D. Donkov, R. M. Ibadov, V. G. Kadyshevsky, M. D. Mateev and M. V. Chizhov, "Fundamental Mass And Extraordinary Fermion Matter. (in Russian)," IN \*ALUSHTA 1984, PROCEEDINGS, PROBLEMS IN QUANTUM FIELD THEORY\* 172-190.
- [888] A. V. Chizhov and M. V. Chizhov, "On The Dynamic Origin Of The Kinetic Terms," Phys. Lett. **125B**, 190 (1983). doi:10.1016/0370-2693(83)91265-0
- [889] M. V. Chizhov "Application of Quantum Electrodynamics with Fundamental Length to High Energy Processes", Izv. AN UzSSR Fizika **5**, p.38-43 (1983).
- [890] M. V. Chizhov, "An Effective Higgs Potential With  $E_6$  Symmetry," Preprint JINR-P2-82-484, Dubna, 1982.
- [891] M. V. Chizhov "Bogolubov's Mechanism of Dynamical Symmetry Breaking and Composite Particles Model", doctoral thesis, JINR Publ.2-82-112, Dubna, 1982.
- [892] A. D. Donkov, R. M. Ibadov, V. G. Kadyshevsky, M. D. Mateev and M. V. Chizhov, "Some Experimental Consequences Of The Hypothesis Of A Fundamental Length," Bull. Russ. Acad. Sci. Phys. **46N9**, 126 (1982) [Izv. Ross. Akad. Nauk Ser. Fiz. **46**, 1772 (1982)].
- [893] M. V. Chizhov, "Anomalous Expectation Values Of Multicomponent Fields," Theor. Math. Phys. **51**, 458 (1982) [Teor. Mat. Fiz. **51**, 218 (1982)]. doi:10.1007/BF01036212
- [894] M. V. Chizhov, "A Grand Unified Model With Bogolyubov's Symmetry Breaking Mechanism," Phys. Lett. **113B**, 159 (1982). doi:10.1016/0370-2693(82)90414-2
- [895] M. V. Chizhov, "Nonabelian Models With Dynamical Symmetry Breaking," Preprint JINR-P2-81-655, Dubna, 1981.
- [896] M. V. Chizhov "Bogolubov's Spontaneous-Symmetry-Breaking Mechanism and Higgs Phenomenon", Europhysics Conference abstracts, Lisbon, 5D, p.276, 1981.
- [897] R. M. Ibadov and M. V. Chizhov, "Fundamental Length And Helicity Nonconservation At High-energies," Comm. JINR P2-81-461, Dubna, 1981.
- [898] M. V. Chizhov, "Bogolyubov's Spontaneous Symmetry Breaking Mechanism and Higgs Phenomenon," Phys. Lett. **104B**, 449 (1981). doi:10.1016/0370-2693(81)90512-8
- [899] M. D. Mateev and M. V. Chizhov, "A Generalized Gauge Principle in the Electrodynamics of the Scalar and Vector Fields," Bulg. J. Phys. **7**, p. 331-336 (1980).
- [900] M. D. Mateev and M. V. Chizhov, "On Some Consequences of a Quantum Electrodynamics With Fundamental Length," Comm. JINR P2-80-61, Dubna, 1980.
- [901] V. G. Kadyshevsky, M. D. Mateev and M. V. Chizhov, "On the Muon and Electron Mass Difference," Theor. Math. Phys. **45**, 1077 (1981) [Teor. Mat. Fiz. **45N3**, 358 (1980)]. doi:10.1007/BF01016707
- [902] M. V. Chizhov "On Electrodynamics with Fundamental Length", thesis of the XVII Soviet Union Science Students Conference, Novosibirsk, 1979.