

7. Списък на публикации и други научни трудове

7.2. Списък на публикациите за участие в конкурса

към 25.08.2014

- A. Реферирани публикации в списания;
- B. Доклади на конференции и публикации в годишници на лаборатории;
- C. Предложения за експерименти в големи международни лаборатории (оценявани от международни научни съвети);
- D. Дисертация за придобиване на научното звание „доктор на физическите науки“;

A1) Physical Review C, submitted – manuscript ID CRJ1057 (2014)

Evolution of quadrupole collectivity in the $N = 80$ isotones towards the $Z = 64$ subshell gap: the $B(E2; 0^+_1 \rightarrow 2^+_1)$ value of ^{142}Sm

R. Stegmann, C. Bauer, **G. Rainovski**, N. Pietralla, S. Bönig, A. Blazhev, A. Damyanova, M. Danchev, K. Gladnishki, R. Lutter, J. Pakarinen, D. Radeck, E. Rapisarda, P. Reiter, M. Scheck, B. Siebeck, T. Stora, P. Thöle, T. Thomas, M. Thürauf, M. J. Vermeulen, D. Voulot, N. Warr, F. Wenander, V. Werner, H. De Witte

A2) Nuclear Instruments & Methods in Physics Research submitted – manuscript ID D-14-00715 (2014)

Coulex-multipolarimetry with relativistic heavy-ion beams

C. Stahl, N. Pietralla, **G. Rainovski**, M. Reese

A3) Physical Review C 88, 041302(R) (2014)

Linking partial and quasi dynamical symmetries in rotational nuclei

C. Kremer, J. Beller, A. Leviatan, N. Pietralla, **G. Rainovski**, R. Trippel, P. Van Isacker

A4) Physical Review C 88, 021302(R) (2013)

Local suppression of collectivity in the $N = 80$ isotones at the $Z = 58$ subshell closure

C. Bauer, **G. Rainovski**, N. Pietralla, D. Bianco, A. Blazhev, T. Bloch, S. Bönig, A. Damyanova, M. Danchev, K. A. Gladnishki, T. Kröll, J. Leske, N. Lo Iudice, T. Möller, K. Moschner, J. Pakarinen, P. Reiter, M. Scheck, M. Seidlitz, B. Siebeck, C. Stahl, R. Stegmann, T. Stora, Ch. Stoyanov, D. Tarpanov, M. J. Vermeulen, D. Voulot, N. Warr, F. Wenander, V. Werner, H. De Witte

A5) Physical Review C 87, 044317 (2013)

Centrifugal stretching from lifetime measurements in the ^{170}Hf ground state band

M. K. Smith, V. Werner, J. R. Terry, N. Pietralla, P. Petkov, Z. Berant, R. J. Casperson, A. Heinz, G. Henning, R. Lüttke, J. Qian, B. Shoraka, **G. Rainovski**, E. Williams, R. Winkler

A6) Physical Review C 87, 037302 (2013)

Identification of the proton $2p_{1/2} \rightarrow 2p_{3/2}$ M1 spin-flip transition in ^{87}Rb

C. Stahl, J. Leske, N. Pietralla, P.R. John, **G. Rainovski**, J. Gerl, I. Kojouharov, H. Schaffner

A7) Physical Review C 86, 031305(R) (2012)

Absolute β -to-ground band transition strengths in ^{154}Sm

T. Möller, N. Pietralla, **G. Rainovski**, T. Ahn, C. Bauer, M. P. Carpenter, L. Coquard, R. V. F. Janssens, J. Leske, C. J. Lister, E. A. McCutchan, O. Möller, D. Seweryniak, S. Zhu

A9) Physical Review C 86, 054305 (2012)

Triaxial deformation and nuclear shape transition in ^{192}Au

Y. Oktem, D.L. Balabanski, B. Akkus, L. Amon Susam, L. Atanasova, C.W. Beausang, R.B. Cakirli, R.F. Casten, M. Danchev, M. Djongolov, E. Ganioglu, K.A. Gladnishki, J.Tm. Goon, D.J. Hartley, A.A. Hecht, R. Krucken, J.R. Novak, **G. Rainovski**, L.L. Riedinger, T. Venkova, I. Yigitoglu, N.V. Zamfir, O. Zeidan

A10) Physical Review C 85, 044303 (2012)

High-spin structure of ^{104}Pd

D. Sohler, I. Kuti, J. Timar, P. Joshi, J. Molnar, E.S. Paul, K. Starosta, R. Wadsworth, A. Algora, P. Bednarczyk, D. Curien, Zs. Dombradi, G. Duchene, D.B. Fossan, J. Gal, A. Gizon, J. Gizon, D.G. Jenkins, K. Juhasz, G. Kalinka, T. Koike, A. Krasznahorkay, B.M. Nyako, P.M. Raddon, **G. Rainovski**, J.N. Scheurer, A.J. Simons, C. Vaman, A.R. Wilkinson, L. Zolnai

A11) Nuclear Instruments & Methods in Physics Research A 668, 25 (2012)

AGATA-Advanced GAMMA Tracking Array

S. Akkoyun,, **G. Rainovski**,(387 co-authors)

A13) Physical Review C 84, 034308 (2011)

In-beam conversion-electron spectroscopy of ^{180}Hg

R. D. Page, A. N. Andreyev, D. R. Wiseman, P. A. Butler, T. Grahn, P. T. Greenlees, R.-D. Herzberg, M. Huyse, G. D. Jones, P. M. Jones, D. T. Joss, R. Julin, S. Juutinen, H. Kankaanpää, A. Keenan, H. Kettunen, P. Kuusiniemi, M. Leino, M. Muikku, P. Nieminen, P. Rahkila, **G.I. Rainovski**, C. Scholey, J. Uusitalo, K. Van de Vel, P. Van Duppen

A21) Physical Review C 80, 044305 (2009)

Magnetic dipole sequences in ^{83}Rb

R. Schwengner, **G. Rainovski**, H. Schnare, A. Wagner, S. Frauendorf, F. Donau, A. Jungclaus, M. Hausmann, O. Yordanov, K.P. Lieb, D.R. Napoli, G.de Angelis, M. Axiotis, N. Marginean, F. Brandolini, C. Rossi Alvarez

A22) Physical Review C 79, 024307 (2009)

Centrifugal stretching along the ground state band of ^{168}Hf

A. Costin, M. Reese, H. Ai, R.F. Casten, K. Dusling, C.R. Fitzpatrick, G. Gurdal, A. Heinz, E.A. McCutchan, D.A. Meyer, O. Moller, P. Petkov, N. Pietralla, J. Qian, **G. Rainovski**, V. Werner

A26) Physical Review C 77, 052501 (2008)

Polarization and relaxation rates of radon

E.R. Tardiff, J.A. Behr, T.E. Chupp, K. Gulyuz, R.S. Lefferts, W. Lorenzon, S.R. Nuss-Warren, M.R. Pearson, N. Pietralla, **G. Rainovski**, J.F. Sell, G.D. Sprouse

A27) Physical Review Letters 100, 112502 (2008)

Interplay between Single-Particle and Collective Effects in the Odd-A Cu Isotopes beyond $N = 40$

I. Stefanescu, G. Georgiev, D.L. Balabanski, N. Blasi, A. Blazhev, N. Bree, J. Cederkall, T.E. Cocolios, T. Davinson, J. Diriken, J. Eberth, A. Ekstrom, D. Fedorov, V.N. Fedosseev, L.M. Fraile, S. Franchoo, K. Gladnishki, M. Huyse, O. Ivanov, V. Ivanov, J. Iwanicki, J. Jolie, T. Konstantinopoulos, Th. Kroll, R. Krucken, U. Koster, A. Lagoyannis, G. Lo Bianco, P. Maierbeck, B.A. Marsh, P. Napiorkowski, N. Patronis, D. Pauwels, **G. Rainovski**, P. Reiter, K. Riisager, M. Seliverstov, G. Sletten, J. Van de Walle, P. Van Duppen, D. Voulot, N. Warr, F. Wenander, K. Wrzosek

A28) Physical Review C 76, 064302 (2007)

Intrinsic state lifetimes in ^{103}Pd and $^{106,107}\text{Cd}$

S.F. Ashley, P.H. Regan, K. Andgren, E.A. McCutchan, N.V. Zamfir, L. Amon, R.B. Cakirli, R.F. Casten, R.M. Clark, W. Gelletly, G. Gurdal, K.L. Keyes, D.A. Meyer, M.N. Erduran, A. Papenberg, N. Pietralla, C. Plettner, **G. Rainovski**, R.V. Ribas, N.J. Thomas, J. Vinson, D.D. Warner, V. Werner, E. Williams, H.L. Liu, F.R. Xu

A29) Physical Review C 76, 044315 (2007) (Erratum Phys. Rev. C 78, 069904(2008))

High-spin states in $^{191,193}\text{Au}$ and ^{192}Pt : Evidence for oblate deformation and triaxial shapes

Y. Oktem, D. L. Balabanski, B. Akkus, C. W. Beausang, M. Bostan, R. B. Cakirli, R. F. Casten, M. Danchev, M. Djongolov, M. N. Erduran, S. Erturk, K. A. Gladniski, G. Gurdal, J. Tm. Goon, D. J. Hartley, A. A. Hecht, R. Krücken, N. Nikolov, J. R. Novak, **G. Rainovski**, L. L. Riedinger, I. Yigitoglu, N. V. Zamfir, O. Zeidan5

- A31) Nuclear Instruments & Methods in Physics Research A 579, 472(2007)
Polarization and relaxation of ^{209}Rn
 E.R. Tardiff, T.E. Chupp, W. Lorenzon, S.R. Nuss-Warren, J.A. Behr, M.R. Pearson, K. Gulyuz, R.S. Lefferts, N. Pietralla, **G. Rainovski**, J.F. Sell, G.D. Sprouse
- A33) Nuclear Physics A 788, 85 (2007)
Isovector Quadrupole Excitations in the Valence Shell studied in Projectile Coulomb Excitation
 N. Pietralla, **G. Rainovski**, T. Ahn, A. Costin
- A38) International Journal of Modern Physics E15, 1735 (2006)
Evidence for X(5) critical point symmetry in ^{128}Ce
 D.L.Balabanski, K.A.Gladnishki, G.Lo Bianco, A.Saltarelli, N.V.Zamfir, E.A.McCutchan, H.Ai, R.F.Casten, A.Heinz, D.A.Meyer, C.Plettner, J.Qian, V.Werner, E.Williams, B.Akkus, L.Amon, R.B.Cakirli, M.N.Erduran, Y.Oktem, S.F.Ashley, P.H.Regan, **G. Rainovski**
- A44) The European Physical Journal A. 27, 201 (2006)
Study of fission fragments produced by $^{14}\text{N} + ^{235}\text{U}$ reaction
 M. Yalcinkaya, E. Ganioglu, M.N. Erduran, B. Akkus, M. Bostan, G. Gurdal, S. Erturk, D. Balabanski, **G. Rainovski**, M. Danchev, R. Dragomirova, A. Minkova, K. Vyvey, R. Beetge, R.W. Fearick, G.K. Mabala, D.G. Roux, W. Whittaker, B.R.S. Babu, J.J. Lawrie, S. Naguleswaran, R.T. Newman, C. Rigolet, J.V. Pilcher, F.D. Smith, J.F. Sharpey-Schafer
- A46) Physica Scripta T125, 115 (2006)
The highest spin discrete levels in $^{131, 132}\text{Ce}$
 E.S.Paul, P.T.W.Choy, C.Andreoiu, A.J.Boston, A.O.Evans, C.Fox, S.Gros, P.J.Nolan, **G. Rainovski**, J.A.Sampson, H.C.Scraggs, A.Walker, D.E.Appelbe, D.T.Joss, J.Simpson, J.Gizon, A.Astier, N.Buforn, A.Prevost, N.Redon, O.Stezowski, B.M.Nyako, D.Sohler, J.Timar, L.Zolnai, D.Bazzacco, S.Lunardi, C.M.Petrache, P.Bednarczyk, D.Curien, N.Kintz, I.Ragnarsson
- A52) Journal of Physics G 31, S1729 (2005)
Octupole signatures in $^{124, 125}\text{Ba}$
 P.Mason, G.Benzoni, A.Bracco, F.Camera, B.Million, O.Wieland, S.Leoni, A.K.Singh, A.Al-Khatib, H.Hubel, P.Bringel, A.Burger, A.Neusser, G.Schonwasser, G.B.Hagemann, C.R.Hansen, B.Herskind, G.Sletten, A.Algora, Zs.Dombradi, J.Gal, G.Kalinka, J.Molnar, B.M.Nyako, D.Sohler, J.Timar, L.Zolnai, M.Kmiecik, A.Maj, J.Styczen, K.Zuber, F.Azaiez, K.Hauschild, A.Korichi, A.Lopez-Martens, J.Rocaz, S.Siem, F.Hannachi, J.N.Scheurer, P.Bednarczyk, Th.Byrski, D.Curien, O.Dorvaux, G.Duchene, B.Gall, F.Khalfallah, I.Piqueras, J.Robin, K.Juhasz, S.B.Patel

A.O.Evans, **G.Rainovski**, C.M.Petrache, D.Petrache, G.La Rana, R.Moro, G.De Angelis, P.Fallon, I.-Y.Lee, J.C.Lisle, B.Cederwall, K.Lagergren, R.M.Lieder, E.Podsvirova, W.Gast, H.Jager, N.Redon, A.Gorgen

A57) Acta Physica Polonica B 36, 1033 (2005)

Search for hyperdeformation in light Xe nuclei

B.M. Nyako, F. Papp, J. Gal, J. Molnar, J. Timar, A. Algora, Zs. Dombradi, G. Kalinka, L. olnai, K. Juhasz, A.K. Singh, H. Hubel, A. Al-Khatib, P. Bringel, A. Burger, A. Neusser, G. Schonwasser, B. Herskind, G.B. Hagemann, C.R. Hansen, G. Sletten, J.N. Scheurer, F. Hannachi, M. Kmiecik, A. Maj, J. Styczen, K. Zuber, K. Hauschild, A. Korichi, A. Lopez-Martens, J. Roccoz, S. Siem, P. Bednarczyk, Th. Byrski, D. Curien, O. Dorvaux, G. Duchene, B. Gall, F. Khalfallah, I. Piqueras, J. Robin, S.B. Patel, A.O. Evans, **G. Rainovski**, A. Airoidi, G. Benzoni, A. Bracco, F. Camera, B. Million, P. Mason, A. Paleni, R. Sacchi, O. Wieland, G.La Rana, R. Moro, C.M. Petrache, D. Petrache, G. De Angelis, P. Fallon, I.-Y. Lee, J.C. Lisle, B. Cederwall, K. Lagergren, R.M. Lieder, E. Podsvirova, W. Gast, H. Jager, N. Redon, A. Gorgen

A58) Acta Physica Polonica B36, 1029 (2005)

High-spin states in ^{124}Ba

A. Al-Khatib, A.K. Singh, H. Hubel, P. Bringel, A. Burger, A. Neusser, G. choenwasser, G.B. Hagemann, C.R. Hansen, B. Herskind, G. Sohler, J. Timar, L. Zolnai, M. Kmiecik, A. Maj, J. Styczen, K. Zuber, K. Hauschild, A. Korichi, A. Lopez-Martens, J. Roccoz, S. Siem, F. Hannachi, J.N. Scheurer, P. Bednarczyk, Th. Byrski, D. Curien, O. Dorvaux, G. Duchene, B. Gall, F. Khalfallah, I. Piqueras, J. Robin, K. Juhasz, S.B. Patel, A.O. Evans, **G. Rainovski**, A. Airoidi, G. Benzoni, A. Bracco, F. Camera, B. Million, P. Mason, A. Paleni, R. Sacchi, O. Wieland, C.M. Petrache, D. Petrache, G. La Rana, R. Moro, G. De Angelis, P. Fallon, I.-Y. Lee, J.C. Lisle, B. Cederwall, K. Lagergren, R.M. Lieder, E. Podsvirova, W. Gast, H. Jaeger, N. Redon, A. Gorgen

A64) European Physics Journal A 20, 191 (2004)

Spectroscopic quadrupole moments of high-spin isomers in ^{193}Pb

D.L. Balabanski, M. Ionescu-Bujor, A. Iordachescu, D. Bazzacco, F. Brandolini, D. Bucurescu, S. Chmel, M. Danchev, M.De Poli, G. Georgiev, H. Haas, H. Hubel, N. Marginean, R. Menegazzo, G. Neyens, P. Pavan, **G. Rainovski**, C. Rossi Alvarez, C.A.Ur, K. Vyvey, S. Frauendorf

B1) Journal of Physics: Conference Series 445, 012030 (2013)

Exotic ideas on mixed proton-neutron symmetry and their manifestation in heavy nuclei

N Pietralla, C Bauer, J Leske, O Möller, T Möller, P von Neumann-Cosel, **G. Rainovski**, A Scheikh-Obeid, C Walz

- B2) Journal of Physics: Conference Series 381, 012047 (2012)
On the origin of low-lying M1 strength in even-even nuclei
G. Rainovski, M. Danchev, N. Pietralla, A. Gargano, A. Covello, C. Baktash, J. R. Beene, C. R. Bingham, A. Galindo-Uribarri, K. A. Gladnishki, C. J. Gross, V. Yu. Ponomarev, D. C. Radford, L. L. Riedinger, M. Scheck, A. E. Stuchbery, J. Wambach, C.-H. Yu, and N. V. Zamfir
- B3) EPJ Web of Conferences 38, 10003 (2012)
Level lifetimes and quadrupole moments from Coulomb excitation in the Ba chain and the N = 80 isotones
C. Bauer, G. Guastalla, J. Leske, O. Möller, T. Möller, J. Pakarinen, N. Pietralla, **G. Rainovski**, E. Rapisarda, D. Seweryniak, C. Stahl, R. Stegmann, J. Wiederhold, S. Zhu⁵
- B4) EPJ Web of Conferences 38, 10001 (2012)
Progress on the study of nuclear states with mixed proton-neutron symmetry
N. Pietralla, Th. Möller, T. Ahn, Ch. Bauer, L. Coquard, M. Danchev, K.A. Gladnishki, A. Krugmann, J. Leske, O. Möller, P. von Neumann-Cosel, V. Yu. Ponomarev, **G. Rainovski**, A. Scheikh Obeid, M. Scheck, Ch. Walz, J. Wambach
- B5) AIP Conference Proceedings. 1488, 53 (2012)
The beauty of good data: Unveiling the traces of mixed symmetry
N. Pietralla, T. Ahn, C. Bauer, L. Coquard, J. Leske, O. Möller, T. Möller, P. von Neumann-Cosel, **G. Rainovski**, C. Walz
- B6) Journal of Physics: Conference Series 366, 012008 (2012)
One-phonon isovector $2^+_{1,MS}$ state in the neutron rich nucleus ^{132}Te
M Danchev, **G. Rainovski**, N Pietralla, A Gargano, A Covello, C Baktash, J R Beene, C R Bingham, A Galindo-Uribarri, K A Gladnishki, C J Gross, V Yu Ponomarev, D C Radford, L L Riedinger, M Scheck, A E Stuchbery, J Wambach, C -H Yu, N V Zamfir
- B7) Journal of Physics: Conference Series 366, 012020 (2012)
Search for one-phonon mixed-symmetry states in the radioactive nucleus ^{140}Nd
K A Gladnishki, **G. Rainovski**, P Petkov, J Jolie, N Pietralla, A Blazhev, A Damyanova, M Danchev, A Dewald, C Fransen, M Hackstein, O Möller, T Pissulla, M Reese, W Rother
- B8) ATOMKI 2010 Ann.Rept., p.40 (2011)
Observation of γ -band structure in ^{104}Pd

D.Sohler, J.Timar, I.Kuti, J.Molnar, A.Algora, Zs.Dombradi, J.Gal, A.Krasznahorkay, L.Zolnai, P.Joshi, K.Starosta, D.B.Fossan, R.Wadsworth, P.Bednarczyk, D.Curien, G.Duchene, A.Gizon, J.Gizon, D.G.Jenkins, T.Koike, E.S.Paul, P.M.Raddon, **G.Rainovski**, J.N.Scheurer, A.J.Simons, C.Vaman, A.R.Wilkinson

B9) AIP Conference Proceedings 1231, 207 (2010)

O(6)-symmetry breaking in the ^{126}Xe nucleus

L. Coquard, N. Pietralla, T. Ahna,b, M. Carpenter, R. V. F. Janssens, K. Lister, J. Leske, O. Möller, T. Möller, **G. Rainovski**, W. Rother and S. Zhu

B12) Proc.of the 12th Internat. Conf. on Nuclear Reaction Mechanisms, Varenna, Italy, June 15-19, 2009, F.Cerutti, A.Ferrari Eds., Vol.1, p.173 (2010)

Symmetries of Quadrupole-Collective Vibrational Motion in Transitional Even-Even $^{124-134}\text{Xenon}$ Nuclei

N. Pietralla, L. Coquard, **G. Rainovski**, T. Ahn, C. Bauer, J. Leske, O. Moller, T. Moller

B14) AIP Conf. Proc. 1090, 140 (2009)(ISBN 978-0-7354-0623-0 / ISSN 0094-243X), Proceedings of the 13th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, Cologne, Germany, August 25-29, 2008

Evolution of the one-phonon mixed-symmetry $2^+_{1,ms}$ state in even-even Xe isotopes from inverse-kinematics Coulomb excitation

L. Coquard, T. Ahn, **G. Rainovski**, N. Pietralla, J. Leske, O. Moller, T. Moller, M. Carpenter, R.V.F. Janssens, C.J. Lister, S. Zhu, L. Bettermann, W. Rother

B15) AIP Conf. Proc. 1090, 524 (2009)(ISBN 978-0-7354-0623-0 / ISSN 0094-243X), Proceedings of the 13th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, Cologne, Germany, August 25-29, 2008

Evidence for the Importance of Soft Deformation Potentials in Strongly Deformed Nuclei

N. Pietralla, A. Costin, J. Bonnet, J. Beller, A. Krugmann, O. Moller, H. Ai, R.F. Casten, A. Heinz, E.A. McCutchan, J. Qian, V. Werner, **G. Rainovski**, K. Dusling

B16) AIP Conf. Proc. 1090, 587 (2009)(ISBN 978-0-7354-0623-0 / ISSN 0094-243X), Proceedings of the 13th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, Cologne, Germany, August 25-29, 2008

Shell Structure and Shape Changes in Neutron Rich Krypton Isotopes

D. Mucher, J. Iwanicki, J. Jolie, I. Stefanescu, J. Van de Walle, F. Becker, U. Bergmann, A. Blazhev, E. Bouchez, P. Butler, J. Cederkall, T. Czosnyka, T. Davinson, J. Eberth, T. Faestermann, S. Franchoo, C. Fransen, J. Gerl, R. Gernhauser, D. Habs, R.-D. Herzberg, M. Huyse, D. Jenkins, G. Jones, O. Kester, W. Korten, J. Kownacki, T. Kroll, R. Krucken, Z. Liu, S. Mandal, P. Napiorkowski, T. Nilsson, N. Pietralla, **G. Rainovski**, H. Scheit, A. Scherillo, D. Schwalm, T.

Sieber, Ch. Theisen, P. Van Duppen, N. Warr, D. Weisshaar, F. Wenander, B. Wolf, P. Woods, M. Zielinska

B17) AIP Conference Proceedings 1165, 225 (2009), Proc. Intern. Conf. on Nuclear Structure and Dynamics, Dubrovnik, Croatia, 4-8 May, 2009

Isovector Quadrupole Excitations in the Valence Shell of Vibrational Nuclei

N. Pietralla, T. Ahn, M. Carpenter, L. Coquard, R.V.F. Janssens, K. Heyde, K. Lister, J. Leske, **G. Rainovski**, S. Zhu

B19) BgNS Transactions 13, 145 (2009) (ISSN 1310-8727), Proceedings of the 17th International School on Nuclear Physics, Neutron Physics and Nuclear Energy, Varna, Bulgaria, September 24-30, 2007)

Isovector quadrupole excitations in the valence shell of vibrational nuclei

N. Pietralla, T. Ahn, O. Burda, **G. Rainovski**

B22) Atomki 2007 Ann.Rept., p.26 (2007)

Study of the band structures in ^{104}Pd

D.Sohler, G.Berek, J.Timar, J.Molnar, A.Algora, Zs.Dombradi, J.Gal, A.Krasznahorkay, L.Zolnai, P.Joshi, K.Starosta, D.B.Fossan, R.Wadsworth, P.Bednarczyk, D.Curien, G.Duchene, A.Gizon, J.Gizon, D.G.Jenkins, T.Koike, E.S.Paul, P.M.Raddon, **G.Rainovski**, J.N.Scheurer, A.J.Simons, C.Vaman, A.R.Wilkinson

B23) AIP Conference Proceedings 819, 11 (2006), Proc. 12th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics Location: Univ Notre Dame, Notre Dame, IN Date: SEP 04-09, 2005

In-beam gamma-spectroscopy of low-spin mixed-symmetry states of Ce-138 with gammasphere in singles-mode

N. Pietralla, **G. Rainovski**, T. Ahn, M.P. Carpenter, R.V.F. Janssens, C.J. Lister, S. Zhu

B24) AIP Conference Proceedings 802, 206 (2005), Proc. International Symposium on Exotic Nuclear Systems Location: Debrecen, HUNGARY Date: JUN 20-25, 2005

Composite chiral bands in the A similar to 105 mass region

J. Timar, C. Vaman, K. Starosta, R. Joshi, V.I. Dimitrov D.B. Fossan, T. Koike, D. Sohler, J. Molnar, R. Wadsworth, A. Algora, P. Bednarczyk, D. Curien, Z. Dombradi, G. Duchene, A. Gizon, J. Gizon, D.G. Jenkins, A. Krasznahorkay, I.Y. Lee, A.O. Macchiavelli, E.S. Paul, P.M. Raddon, **G. Rainovski**, J.N. Scheurer, A.J. Simons, A.R. Wilkinson, L. Zolnai, S. Frauendorf

B25) Triangle University Nuclear Laboratory, Annual Report, p.186 (2005)

Search for Magnetic Dipole Excitation Strength in ^{40}Ar

M.W.Ahmed, T.Ahn, C.Angell, M.Blackston, A.Costin, K.Keeter, J.Li, T.C.Li, S.Mikhailov, N.Pietralla, **G.Rainovski**, Y.Parpottas, B.Perdue, W.Tornow, A.P.Tonchev, H.R.Weller, Y.K.Wu

B26) AIP Conference Proceedings 701, 303 (2004) International Conference on the Labyrinth in Nuclear Structure Location: Iraklion, GREECE Date: JUL 13-19, 2003

Hyperdeformed shapes and Jacobi transitions in Ba-126

B. Herskind, G. B. Hagemann, G. Sletten, Th. Dossing, C. Ronn Hansen, S. Odegård, H. Hübel, P. Bringel, A. Bürger, A. Neusser, A. K. Singh, A. Al-Khatib, S. B. Patel, A. Bracco, S. Leoni, F. Camera, G. Benzoni, P. Mason, A. Paleni, B. Million, O. Wieland, P. Bednarczyk, F. Azaiez, Th. Byrski, D. Curien, O. Dakov, G. Duchene, F. Khalfallah, B. Gall, I. Piqueras, J. Robin, J. Dudek, N. Rowley, N. Redon, F. Hannachi, J. N. Scheurer, J. N. Wilson, A. Lopez-Martens, A. Korichi, K. Hauschild, J. Roccoz, S. Siem, P. Fallon, I.-Y. Lee, A. Goergen, B. M. Nyakó, A. Algora, Zs. Dombrádi, J. Gál, G. Kalinka, D. Sohler, J. Molnár, J. Timár, L. Zolnai, K. Juhász, A. Maj, M. Kmiecik, M. Brekiesz, J. Styczen, K. Zuber, J. C. Lisle, B. Cederwall, K. Lagergren, A. O. Evans, **G. Rainovski**, G. de Angelis, G. La Rana, R. Moro, W. Gast, R. M. Lieder, E. Podsvirova, H. Jäger, C. M. Petrache and D. Petrache

B27) AIP Conference Proceedings 701, 383 (2004) International Conference on the Labyrinth in Nuclear Structure Location: Iraklion, GREECE Date: JUL 13-19, 2003

Chirality in the A~100 region

P. Joshi, D. G. Jenkins, P. M. Raddon, A. J. Simons, R. Wadsworth, T. Wilkinson, D. B. Fossan, K. Starosta, C. Vaman, J. Timár, Zs. Dombrádi, A. Krasznahorkay, J. Molnár, D. Sohler, L. Zolnai, A. Algora, E. S. Paul, **G. Rainovski**, J. Gizon, A. Gizon, P. Bednarczyk, D. Curien, G. Duchene, N. Fotiades and J. N. Scheurer

B28) AIP Conference Proceedings 701, 208 (2004) International Conference on the Labyrinth in Nuclear Structure Location: Iraklion, GREECE Date: JUL 13-19, 2003

Deformation of the very neutron-deficient rare-earth nuclei produced with the SPIRAL 76Kr radioactive beam and studied with EXOGAM + DIAMANT

N. Redon, A. Prévost, D. Guinet, Ph. Loutesse, M. Meyer, B. Rossé, O. Stézowski, P. J. Nolan, C. Andreoiu, A. J. Boston, M. Descovich, A. O. Evans, S. Gros, J. Norman, R. D. Page, E. S. Paul, **G. Rainovski**, J. Sampson, G. de France, J. M. Casandjian, Ch. Theisen, J. N. Scheurer, B. M. Nyakó, J. Gál, G. Kalinka, J. Molnár, Zs. Dombrádi, J. Timár, L. Zolnai, K. Juhász, A. Astier, I. Deloncle, M. G. Porquet, R. Wadsworth, P. Raddon, Y. Lee, A. Wilkinson, P. Joshi, J. Simpson, D. Appelbe, D. Joss, R. Lemmon, J. Smith, D. Cullen, A. Brondi, G. La Rana, R. Moro, E. Vardacci and M. Girod

B29) ATOMKI 2003 Ann.Rept., p.9 (2004)

Chiral twin bands in the ^{105, 106}Rh nuclei

J.Timar, D.Sohler, J.Molnar, A.Algora, Zs.Dombradi, A.Krasznahorkay, L.Zolnai, P.Joshi, D.G.Jenkins, P.M.Raddon, A.J.Simons, R.Wadsworth, A.R.Wilkinson, K.Starosta, D.B.Fossan, C.Vaman, E.S.Paul, **G.Rainovski**, J.Gizon, A.Gizon, P.Bednarczyk, D.Curien, G.Duchene, J.N.Scheurer

B30) International Symposium on Nuclear Structure Physics (NP 2001), University of Göttingen Germany, MAR 05-08, 2001

Transition strengths in magnetic dipole bands in ^{82}Rb , ^{83}Rb and ^{84}Rb

R. Schwengner, **G. Rainovski**, H. Schnare, A. Wagner, F. Donau, M. Hausmann, O. Iordanov, A. Jungclaus, K.P. Lieb, D.R. Napoli, G. De Angelis, M. Axiotis, N. Marginean, F. Brandolini, C.R. Alvarez

C1) CERN – HIE-ISOLDE proposal INTC-P-339 (experiment IS546) (2012)

“Study of the effect of shell stabilization of the collective isovector valence-shell excitations along the $N=80$ isotonic chain”

C. Bauer, N. Pietralla (spokeperson), S. Bönig, S. Illeva, Th. Kröll, O. Möller, T. Möller, M. Scheck, C. Stahl, R. Stegmann, M. Thürauf, **G. Rainovski (co-spokesperson)**, M. Danchev, K. Gladnishki, V. Karayonchev, A. Blazhev, H. Duckwitz, C. Fransen, J. Jolie, N. Warr, D. Mücher

42 shifts approved as the experiment is expected to run in 2015

C2) GSI experiment S426 (approved by G-PAC February 2012, completed March 2014)

Relativistic Coulomb M1 excitation of neutron-rich ^{85}Br

N. Pietralla (spokesperson), **G. Rainovski (co-spokesperson)**, M. Reese, C. Stahl, P. Boutachkov, M. Danchev, J.Gerl, K. Gladnishki, M. Gorska, G. Guastella, P. R. John, J. Leske, E. Merchan, O. Möller, T. Möller, S. Pietri, H.-J. Wollersheim, D. Jenkins

C3) Argonne National Laboratory – ATLAS proposal #1352 (approved 2011, amended 2012, completed 2013)

Study of the origin of the low-lying M1 strength: search for the one-phonon mixed-symmetry $2^+_{1,ms}$ state of ^{204}Hg in an inverse-kinematics Coulomb excitation experiment

G. Rainovski (spokesperson), N. Pietralla, M. Scheck, T. Möller, O. Möller, R.V.F. Janssens, C.J. Lister, M. Carpenter, and S. Zhu

C4) CERN – ISOLDE proposal INTC-P-268 (experiment IS496) (approved 2009, completed 2012)

Study of the effect of shell stabilization of the collective isovector valence-shell excitations along the $N=80$ isotonic chain

N. Pietralla (spokesperson), J. Leske, L. Coquard, O. Möller, T. Möller, Th. Kröll, **G. Rainovski (co-spokesperson)**, M. Danchev, K. Gladnishki, D. Karagyozov, R.

Topchiyska, A. Damyanova, J. Jolie, A. Blazhev, D. Mücher, C. Fransen, N. Warr, D. Jenkins, R. Wadsworth, C. Barton, and R. Krücken

- C5) GSI experiment U242 (approved by G-PAC 2009, completed 2010)
Properties of the one-phonon MSS in ^{140}Ba from an α -transfer reaction
G. Rainovski (spokesperson), J. Leske (co-spokesperson), C. Bauer, L. Coquard, A. Damyanova, M. Danchev, K. Gladnishki, I. Kojouharov, Th. Kröll, N. Pietralla, S. Pietri, H. Schaffner
- C6) Argonne National Laboratory – ATLAS proposal #1309 (approved 2010, completed 2010)
Is $O(6)$ algebraic symmetry exhibited in real nuclei?
C.J. Lister (spokesperson), E.A. McCutchan, M.P. Carpenter, R.V.F. Janssens, T.L. Khoo, T. Lauritsen, D. Seweryniak, S. Zhu, G. Gurdal, **G. Rainovski (co-spokesperson)**, N. Pietralla, L. Coquard, J. Leske, O. Moller, Th. Moller, J. Jolie, W. Rother, L. Betterman, V. Werner, T. Ahn, I. Y Lee, A.O. Macchiavelli, M. Cromaz, R. Clark, P. Fallon
- C7) Argonne National Laboratory – ATLAS proposal #1237 (approved 2008, completed 2009)
Inverse-kinematics two-step Coulomb excitation of two-phonon mixed-symmetry states of ^{94}Mo and ^{96}Ru – part I
N. Pietralla (spokeperson), C. Bauer, L. Coquard, J. Leske, **G. Rainovski (co-spokeperson)**, M. Carpenter, R.V.F. Janssens, T. Lauritsen, K. Lister, E.A. McCutchan, S. Zhu, R.C. Vondrasek
- C8) Argonne National Laboratory – ATLAS proposal #1163-2 (approved 2007, completed 2008)
Evolution of the one-phonon mixed-symmetry $2^+_{1,ms}$ state in the spherical-to-axially-deformed shape phase transition in Sm isotopes from inverse-kinematics Coulomb excitation
T. Ahn (spokesperson), M. Carpenter, L. Coquard, A. Costin, R.V.F. Janssens, T. Lauritsen, J. Leske, K. Lister, O. Möller, T. Möller, N. Pietralla, **G. Rainovski (co-spokesperson)**, R.C. Vondrasek, S. Zhu
- C9) Argonne National Laboratory – ATLAS proposal #1085 (approved 2005, completed 2005)
Identification of the mixed-symmetry one-phonon $2^+_{1,ms}$ state of ^{136}Ce and ^{134}Xe in inverse-kinematics Coulomb excitation
T. Ahn (spokesperson), N. Pietralla, **G. Rainovski (co-spokesperson)**, M. Carpenter, R.V.F. Janssens, T. Lauritsen, K. Lister, S. Zhu, R.C. Vondrasek
- C10) Argonne National Laboratory – ATLAS proposal #1096 (approved 2005, completed 2005)

Test of nuclear chirality in ^{104}Rh - study of electromagnetic transitions and the chiral selection rules via lifetime measurements using the recoil distance method in inverse kinematics

G. Rainovski (spokesperson), N. Pietralla (co-spokesperson), A. Costin, T. Koike, C. Vaman, P. Joshi, R. Wadsworth, P. Davies, F. Johnston-Theasby, J. Timár, E.S. Paul, M. Danchev, M. Djongolov, D.L. Balabanski, K. Gladnishki, A. Dewald, O. Möller, Barbara Melon, R.V.F. Janssens, M. Carpenter, C. Lister, and S. Zhu

C11) VIVITRON experiment EB-02114 (approved 2002, completed 2002)

'Search for Magnetic Dipole Bands and Chiral Twin Bands in ^{132}Cs

G.I. Rainovski (spokesperson), P.J. Nolan, E.S. Paul (co-spokesperson), D.G. Jenkins, A.O. Evans, J. Norman, R. Wadsworth, A. Simons, P. Raddon, D.B. Fossan, T. Koike, K. Starosta, C. Vaman, E. Farnea, G. de Angelis, A. Gadea

D1) Дисертация за придобиване на научната степен „доктор на науките“ по 4.1 Физически науки (Ядрена физика) (виж приложеното CD)

An experimental study of low-energy M1 collective excitations in atomic nuclei
Защитена на ДД.ММ.2012 в СУ Св. Климент Охридски

/доц. дфзн Георги Райновски/