

CURRICULUM VITAE

Павел Василев Ставрев D.Phil.

Google Scholar: $h=17$, citations – 1010

ResearchGate $h=15$ (excluding self-citations – 14), citations - 783

<https://scholar.google.bg/citations?user=tJ0Vwv0AAAAJ&hl=bg>

https://www.researchgate.net/profile/Pavel_Stavrev

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Дата на раждане: Септември 4, 1957

Месторождение: Варна, България



Образование:

- 93 - 97 - D.Phil. *Radiobiological optimization of the treatment taking tumour mobility into account*. (Медицинска физика), Department of Physics, Waikato University, Hamilton, New Zealand. По-голяма част от резултатите в докторската дисертация са публикувани в пет статии - **23-27** (виж списъкът с публикации), които имат общо 23 цитата.
- 81 - 82 - M Sc. *Определяне на зенитно-ъгловото разпределение на мюоните във вторичното космично лъчение*. (Космично лъчение), Факултет по Физика, Софийски Университет, София, България. Резултатите от дипломната ми работа са публикувани в статия *I*.
- 77 - 81 - B.Sc. (метеорология), Факултет по Физика, Софийски Университет, София, България

- 1972 -1975 – Математическа паралелка, III Гимназия, Варна, България

Трудов Стаж и Основни Изследвания:

2018 – **понастоящем** Изследвател, НИС, СУ „Климент Охридски“

2017 – **понастоящем** Хоноруван преподавател (Клинична дозиметрия), Физически Факултет, (Магистърска програма по Медицинска Физика), СУ „Климент Охридски“

2011 – **2016** Научен Консултант, Department of Radiation Oncology, Ospedale “Sacro Cuore – don Calabria”, Via Don A. Sempredoni 5, 37024 Negrar (VR), Italy,

2009 – **2011** Научен Консултант. U.O. Fisica Sanitaria, Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori, Via Piero Maroncelli, 40, 47014 Meldola (FC), Italy.

- Изследване на възможността за извършване на класификация на радиотерапевтични планове, независимо от стойностите на моделните TCP-NTCP (вероятност за туморен контрол-вероятност за увреждане на нормалната тъкан) параметри
- Изследвания на две популационни Поасоновы TCP (вероятност за туморен контрол след облъчване) формули в общия случай на нехомогенно облъчване.
- Изследване на нов TCP (вероятност за туморен контрол) модел, отчитащ хипоксията и ресензитацията на туморните клетки по време на външно фракционно облъчване. Приложение към хипофракционната радиотерапия.

2004 – **2008** Научен Консултант. Department of Medical Physics, Cross Cancer Institute, 11560 University Avenue, Edmonton, Alberta, T6G 1Z2, Canada

- Обратно проекциониране на NTCP (вероятността за компликация на нормалната тъкан) в дозово-обемното хистограмно пространство. Изследва се ограничеността на традиционното планиране на радиационната терапия на базата на физически целеви функции спрямо оптимизация с биологически критерии.
- Анализ на експериментални данни от облъчване на различни породи мишки за увреждане на бял дроб (радиационна пневмония) на базата на NTCP модел (Критичен обем) за органи с паралелна структура.
- Изследване на динамиката на репопулиращ тумор по време на външно фракционно облъчване. Методи за изчисляване вероятността за оцеляване на i -клетки след m -тата фракция на облъчване от N първоначални клетки.
- Изследване на ефекта на ресензитация на туморните клетки върху реакцията на тумора (TCP - вероятност за туморен контрол) при външно фракционно облъчване.
- Обща форма на популационния Поасонов TCP модел при хомогенно облъчване. Сравнение на функционалната форма на популационния и индивидуалния TCP модели.
- Баесов подход към проблема за изчисляването на конфиденциални интервали на експериментални и клинични данни с двоичен изход (вероятност за добър/лош изход).

2001 – 2003 Медицински Физик (асоцииран). Department of Medical Physics, Cross Cancer Institute, 11560 University Avenue, Edmonton, Alberta, T6G 1Z2, Canada

- Изследване на ефекта на репопулация на тумора върху реакцията му (TCP – вероятност за туморен контрол) при външно фракционно облъчване.
- Извеждане на формулите за наклона на кривата доза-туморен контрол за различни радиобиологични TCP модели.
- Фракционизационна корекция на модела на Lyman за NTCP (вероятност на компликация на нормалната тъкан при радиотерапия).
- Софтуерен модул за оценка на TCP (вероятностите за туморен контрол) и NTCP (компликация на нормалната тъкан) при външна радиотерапия, базиран на известните радиобиологични модели, оценки на моделните параметрични стойности и хистограми доза-обем.
- Оценка на едно аналитично решение за вероятността за туморен контрол, отчитащ популационния разброс на стойностите на моделните параметри.
- Решаване на обратна задача за планиране на лечението на базата на хибридна физико-биологична целева функция.

2000 – 2001 Postdoctoral Research Associate, Medical Physics Unit, Montreal General Hospital & McGill University, Montreal, Canada

- Радиобиологично изследване на разликите между стратегиите на дву-фазно срещу симултантно-интегрална простатна интензитетно модулирана радиотерапия.
- Разработване на експериментална система за обратно планиране на радиационната терапия чрез модулиране интензитета на облъчване, базирана на биологични критерии.

1997 – 2000 Postdoctoral Research Fellow, Department of Radiation Oncology, Massachusetts General Hospital & Harvard Medical School, Boston, US

- Обобщение на TCP/NTCP модел на тъканната (туморна и нормална тъкан) реакция при облъчване, базиран на идеята за функционални субединици и биномиална статистика
- Моделиране на вероятността за увреждане при облъчване на гръбначния стълб, базирано на идеята за увреждане на няколко последователни функционални субединици
- Откриване и изследване на проблема за междупараметрична корелация на NTCP модела “Критичен Обем”.
- Анализ на клинични данни и данни от експерименти с облъчване на животни, използвайки съществуващи NTCP модели за оценка на вероятността за компликация на нормалната тъкан; фина настройка на съществуващите модели.

1997 – R&D Physicist, The Meat Industry Research Institute of New Zealand

- Изследване на различни методи за определяне на дебелината на подкожната мазнина и класифицирането им по ефикасност с цел приложение на най-подходящия от тези методи при създаването на робот за автоматично отделяне на тлъстините от корпуса на животното.

1991-1993 СТЕЛИАНА-90, Собственик

- Компютърен сервиз и продажби.
- Разработка на информационна система за наблюдение на химическия състав на течността на първия контур на водно-воден ядрен реактор. Оценка и контрол на високотемпературните РН стойности.
- Разработка на експертна система за индивидуализация и оптимизация на лекарствената терапия.

1990-1991 Научен сътрудник Пост, Институт за Ядрени Изследвания и Ядрена Енергетика, БАН, София, България

- Оценка за химическия състав на първичните космични лъчи с енергии в диапазона 10^{14} - 10^{16} eV
- Електромагнитни каскади, инициирани в земното магнитно поле, от фотони със свръх висока енергия.

1987-1990 Научен сътрудник Пост, Институт по Физика на Твърдото Тяло, БАН, София, България

- Разработка на алгоритъм и софтуер за оценка на параметрите на Si-SiO пластини по техните измерени CV криви.
- Монте Карло симулации на електронна пропация в инверсни слоеве.
- Създаване на софтуер за числено оптимизиране на сферични лещи с квадратичен градиент на индекса на пречупване.

1985-1987 Научен сътрудник. Лаборатория по Космично Лъчение, Физически институт "П.Н.Лебедев", АН СССР, Москва, СССР

- Участие в създаването на установката за изучаване на космичните лъчи "Адрон".
- Участие в разработката на електронен блок с наносекундна точност за измерване на времевите характеристики при регистриране на широките атмосферни порои.
- Търсене на нестабилни частици (чармовани бариони) в каскади, инициирани от единични адрони.

1982-1985 Физик, Институт за Ядрени Изследвания и Ядрена Енергетика, БАН, София, България

- Участие в поддръжка на експеримента по изследване на вторичното космично лъчение на връх Мусала и в изграждането на неутронния супермонитор.
- Участие в разработката на програма за решение на дву-дименсиално плюс време параболично частно диференциално уравнение с цел моделиране на модулирането на Първичното космично лъчение в хелиосферата.

Преподавателски опит:

2017- понастоящем - Клинична дозиметрия, Физически Факултет, (Магистърска програма по Медицинска Физика), СУ „Климент Охридски“

2010 – 4 лекции по “Statistical ideas for medical physicists”, U.O. Fisica Sanitaria, Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori, Italy

2010 – Лекция от цикъла ‘Среща с професора’ “Radiobiological modeling: Theory and Application to Cellular and Animal experiments and to Clinics.” U.O. Fisica Sanitaria, Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori.

2002, 2001 – 4 лекции - Радиобиология, CCI & University of Alberta, Edmonton, Alberta, Canada

1997 – Астрономия (бакалавърски курс) 6 лекции, Waikato University, Hamilton, NZ

1995 – Астрофизика (магистърски курс) – 24 лекции - (Слънчева Физика, Космично лъчение и Компактни обекти), Waikato University, Hamilton, NZ

Workshops

Съорганизатор с A. Nahum and M. Carlone на уъркшоп “Modeling Tumour Response to Irradiation” 2008, Edmonton, Canada.

Graduate Students

Научен съ-ръководител на един MSc и два PhD студента – CCI, Uniniversity of Alberta, Canada. (2001-2007)

Научен ръководител на пет MSc students – Faculty of Physics, Sofia Uniniversity “St Kliment Ohridski”. (2017-2020)

Резюме на научната дейност:

- Съавтор на 71 труда (48 по медицинска физика, 18 по космично лъчение, 5 в други области), от които
 - 59 публикации в рецензирани списания
 - 11 публикувани в пълен текст доклади в конферентни сборници
 - Глава от Encyclopedia of Medical Devices and Instrumentation - Optimization Of Radiotherapy Treatment Planning. Anthony Wolbarst, Lee Chin, Pavel Stavrev. Encyclopedia of Medical Devices and Instrumentation, John Wiley and Sons, 2006, Vol.6, p38-48, ISBN-10 0-470-04071-8
 - Обзорно изследване: Methods of Fat Depth Measurement. P. V. Stavrev, Mark Peter F. Loeffen 1998, Volume 682 MIRINZ (Meat Industry Research Institute of New Zealand), Confidential Report.
- 85 доклада на научни форуми.
- Един поканен доклад - “Derivation of TCP model parameters from clinical outcome data” на ESTRO, Leipzig 2006

Грантове

- 2017 - D Pressyanov, P Stavrev, N Stavreva, A Balabanova, M Gancheva, I Zlatkova, D Penev, A Nahum, R Ruggieri. Development of a Method for Radiation Treatment Plan Evaluation based on Radiobiological Criteria. (Bulgaria)
- 2011 - P Stavrev (Principle Investigator). Parameter invariant TCP- NTCP Radiotherapy Plan Ranking. (Italy)
- 2003 - BG Fallone, P Stavrev. Evaluation of the Radiobiological Stability of IMRT Planning. (Canada)
- 2003 - M Parliament, D Murray, S Damaraju, P Stavrev, BG Fallone. Exploring Genomic, Proteomic and Dosimetric Determinants of Late Toxicity after Three-Dimensional Conformal Radiotherapy for Prostate Cancer. (Canada)
- 2002 - BG Fallone, S Rathee, R Hooper, P Stavrev, M MacKenzie, C Field, B Murray. The Development of Dose-Volume Metrics for Planning Adaptive Helical Tomotherapy. (Canada)

LIST OF PUBLICATIONS

(Peer Reviewed, Journals and Conference Proceedings Full Text Articles)

71. R. Ruggieri, M. Rigo, S. Naccarato, D. Gurrera, V. Figlia, R. Mazzola, F. Ricchetti, L. Nicosia, N. Giaj-Levra, F. Cuccia, C. Vitale, N. Stavreva, D. S. Pressyanov, P. Stavrev, R. Pellegrini, F. Alongi. Adaptive SBRT by 1.5T MR-linac for Prostate cancer: on the accuracy of dose delivery in view of the prolonged session time. *Physica Medica*, 80,2020, 34-41.
70. N. Stavreva, P. Stavrev, A. Balabanova, A. Nahum, R. Ruggieri, D. Pressyanov. Modelling the effect of spread in radiosensitivity parameters and repopulation rate on the probability of tumour control. *Physica Medica*, 2019, 63, P79-86.
69. Stavrev, P., Stavreva, N., Penev, D., Nahum, A., Ruggieri, R., & Pressyanov, D. Investigation of the effect of natural tumor cell death on radiotherapy outcomes (2018). *PMB*, 63(20), 205001
68. Ruggero Ruggieri, Pavel Stavrev, Stefania Naccarato, Nadejda Stavreva, Filippo Alongi, Alan E Nahum. Optimal dose and fraction number in SBRT of lung tumours: a radiobiological analysis. *Physica Medica*, 44, 2017, p 188-195.
67. Ruggieri, R., Naccarato, S., Stavrev, P., Stavreva, N., Pasetto, S., Salamone, I. And Alongi, F. Technical Note: Correction for intra-chamber dose gradients in reference dosimetry of flattening-filter-free MV photon beams. *Med. Phys.* (2016), 43: 4729–4733.
66. Stavrev, P. R. Ruggieri, N. Stavreva, S. Naccarato, F. Alongi. Applying radiobiological plan ranking methodology to VMAT prostate SBRT. *Physica Medica: European Journal of Medical Physics* , 2016, Volume 32 , Issue 4 , 636 – 641.
65. R. Ruggieri, S. Naccarato, P. Stavrev, N. Stavreva, S. Fersino, N. Giaj Levra, R. Mazzola, P. Mancosu, M. Scorsetti, and F. Alongi. Volumetric-modulated arc stereotactic body radiotherapy for prostate cancer: dosimetric impact of an increased near-maximum target dose and of a rectal spacer. *The British Journal of Radiology* 2015 88:1054
64. Pavel Stavrev, Nadejda Stavreva, Ruggero Ruggieri and Alan Nahum. On differences in radiosensitivity estimation: TCP experiments versus survival curves. A theoretical study. *Phys Med Biol* 2015 Aug 28;60(15):N293-9.
63. Ruggieri R, Stavreva N, Naccarato S, Stavrev P. Computed 88% TCP dose for SBRT of NSCLC from tumour hypoxia modelling. *Phys Med Biol*. 2013 Jul 7;58(13) :4611-20
62. Ruggieri R, Stavreva N, Naccarato S, Stavrev P. Applying a hypoxia-incorporating TCP model to experimental data on rat sarcoma. 2012, *Int J Radiat Oncol Biol Phys*. 2012 Aug 1;83(5):1603-8.
61. Stavreva N, Nahum A, Markov K, Ruggieri R, Stavrev P. Analytical investigation of the possibility of parameter invariant TCP-based radiation therapy plan ranking. *Acta Oncol*. 2010 Nov;49(8):1324-33.
60. Carlone M, Nahum A, Stavrev P. TCP modelling - why is it important? *Acta Oncol*. 2010 Nov;49(8):1205,

59. P. Stavrev, C. Schinkel, N. Stavreva, B. Warkentin, M. Carlone, B. G. Fallone, "Population TCP estimators in case of heterogeneous irradiation: A new discussion of an old problem." *Acta Oncol* 49(8), 1293-1303, 2010,
58. P. Stavrev, C. Schinkel, N. Stavreva, B. G. Fallone, "How well are clinical gross tumor volume DVHs approximated by an analytical function?" *Radiol. Oncol.* 43(2), 132-135, 2009.
57. Stavreva N, Stavrev P, Fallone GB. Probability Dynamics of a Repopulating Tumor in Case of Fractionated External Radiotherapy. *Physica Medica* (2009) 25, 181-191,
56. T Stanescu, H-S Jans, N Pervez, P Stavrev and B G Fallone. A study on the magnetic resonance imaging (MRI)-based radiation treatment planning of intracranial lesions. *Phys. Med. Biol.* 53, 3579-3593, 2008,
55. Stavreva N, Stavrev P, Fallone GB. Confidence limits of the probability of success in animal experiments and clinical studies: A Bayesian approach. (Available online 15 February 2008) *Physica Medica (EJMP)* 25, 43-46, 2009,
54. Schinkel, C., N. Stavreva, P. Stavrev, M. Carlone and B. G. Fallone. Functional form comparison between the population and the individual Poisson based TCP models. *Radiol Oncol* 41(2): 90-98. 2007,
53. Stavrev, P., C. Schinkel, N. Stavreva, K. Markov and B. G. Fallone. Analytical investigation of properties of the iso-NTCP envelope. *Radiol Oncol* 41(1): 41-47. 2007,
52. Schinkel, C., P. Stavrev, N. Stavreva and B. G. Fallone. A theoretical approach to the problem of dose-volume constraint estimation and their impact on the dose-volume histogram selection. *Med. Phys.* 33(9): 3444-3459. 2006,
51. Markov, K., C. Schinkel, P. Stavrev, N. Stavreva, M. Weldon and B. G. Fallone. Reverse mapping of normal tissue complication probabilities onto dose volume histogram space: the problem of randomness of the dose volume histogram sampling. *Med. Phys.* 33(9): 3435-3443. 2006,
50. Stanescu, T., J. Hans-Sonke, P. Stavrev and B. G. Fallone. 3T MR-based treatment planning for radiotherapy of brain lesions. *Radiol Oncol* 40(2): 125-132. (2006).
49. Carlone M, Warkentin B, Stavrev P and Fallone B G. Fundamental form of the population TCP model in the limit of large heterogeneity. *Med. Phys.* 33(6) 1634-1642, 2006,
48. B Warkentin, P Stavrev, N A Stavreva and B G Fallone. Limitations of a TCP model incorporating population heterogeneity. *Phys. Med. Biol.* 50, 3571-358, 2005,
47. P Stavrev, M Weldon, B Warkentin, N Stavreva and B G Fallone. Radiation damage, repopulation and cell recovery analysis of in vitro tumour cell megacolony culture data using a non-Poissonian cell repopulation TCP model. *Phys. Med. Biol.* 50 3053-3061, 2005,
46. Stavrev P, Stavreva N, Sharplin J, Fallone BG, Franko A. Critical volume model analysis of lung complication data from different strains of mice. *Int J Radiat Biol* vol. 81 (1): 77-88 JAN 2005,

45. Stavreva NA, Warkentin B, Stavrev PV, Fallone BG. Investigating the effect of clonogen resensitization on the tumor response to fractionated external radiotherapy. *Med Phys.* Mar;32(3):720-5. 2005,
44. J. Amanie, D. Robinson, B. Murray, C. Field, B. Warkentin, P. Stavrev, R. Henning and W. Roa. Comparison of dose-escalated and intensity- modulated three-dimensional conformal radiotherapy plans in patients with localised non-small-cell lung cancer. *Current Oncology*, Vol. 11, 1, p 93, 2004,
43. Rufus A. Scrimger, Pavel Stavrev, Matthew B. Parliament, Colin Field, Heather Thompson, Nadia Stavreva and B. Gino Fallone. Phenomenologic model describing flow reduction for parotid gland irradiation with intensity-modulated radiotherapy: Evidence of significant recovery effect. *IJROBP*, Vol. 60, No. 1, pp. 178-185, 2004,
42. B. Warkentin, P. Stavrev, N. Stavreva, C. Field and B. Gino Fallone. A TCP-NTCP estimation module using DVHs and known radiobiological models and parameter sets. *Journal of Applied Clinical Medical Physics*, Vol. 5, No. 1, 2004,
41. Stavrev P, Hristov D, Warkentin B, Sham E, Stavreva N and Fallone BG. Inverse treatment planning by physically constrained minimization of a biological objective function. *Med. Phys.* 30(11), p2948-2958, 2003,
40. Pavel Stavrev and Dimitre Hristov. Prostate IMRT fractionation strategies: two-phase treatment versus simultaneous integrated boost. *Radiol Oncol* 2003;37(2):115-26,
39. N. A. Stavreva, P. V. Stavrev, B. Warkentin, and B.G. Fallone. Investigating the Effect of Cell Repopulation on the Tumor Response to Fractionated External Radiotherapy. *Med. Phys.* 30(5), p735-742, 2003 & *Virtual Journal of Biological Physics Research*--April 15, 2003,
38. D. Severin, S. Connors, H. Thompson, S. Rathee, P. Stavrev, J. Hanson. Breast radiotherapy with inclusion of the internal mammary nodes: A comparison of techniques with 3 dimensional planning. *IJROBP*, Vol. 55, No. 3, pp. 633–644, 2003,
37. N. A. Stavreva and P. V. Stavrev. Some limitations of the application of the NTCP model describing the response of organs with 'relatively serial' structure. *Int J Radiat Biol*, vol. 78, pp. 948-50; author reply 951-2, 2002.
36. N. Stavreva, P. Stavrev, B. Warkentin, and B. G. Fallone, Derivation of the expressions for gamma50 and D50 for different individual TCP and NTCP models. *Phys Med Biol*, vol. 47, pp. 3591-604, 2002.
35. Hristov, D., Stavrev, P., Sham, E., and Fallone, On the implementation of dose-volume objectives in gradient algorithms for inverse treatment planning. B. G. (2002). *Med Phys*, 29(5), 848-56.
34. Stavrev PV, Hristov DH and. Seuntjens JP. On the consistent use of organ definitions and radiobiological models for the evaluation of complication probabilities of "tubular" organs. *IJROBP*,2002, Impact Factor 4.52
33. P. Stavrev, D Hristov, E Sham. IMRT Inverse Treatment Planing Optimization Based on Physical Constrains and Biological Objectives. *Proc. of 47nd Annual General Meeting of the*

Canadian Organization of Medical Physicists (COMP), Kelowna, British Columbia, June 12-14, 2001. p193-195

32. D Hristov, E Sham, P. Stavrev, G Falone. Large-Scale Constrained Optimization for Inverse Treatment Planning. Proc. of 47nd Annual General Meeting of the Canadian Organization of Medical Physicists (COMP), Kelowna, British Columbia, June 12-14, 2001. p182-184

31. P. Stavrev, A. Niemierko, N. Stavreva, M. Goitein. The Application of Biological Models to Clinical Data. *Physica Medica*, 17, 2, p2, 2001,

30. N. Stavreva, A. Niemierko, P. Stavrev, M Goitein. Modeling the dose-volume response of the spinal cord, based on the idea of damage to contiguous functional subunits. *International Journal of Radiation Biology*, 77, 5, 2001, Impact Factor 1.9

29. P Stavrev, N Stavreva, A Niemierko and M Goitein. Generalization of a model of tissue response to radiation based on the idea of functional subunits and binomial statistics. *Phys. Med. Biol.* 46, 5, p1501-18, 2001,

28. Stavrev P, Stavrev N. Fraction size and dose parameters related to the incidence of pericardial effusions: Regarding Martel et al. Letter to the Editor. *IJROBP* 40(1): 55-161; 1998. *Int. J. of Rad. Onc. Biol. Phys.* 48: (2) 611-613 Sep 1 2000,

27. PV Stavrev, NA Stavreva, WH Round. A Study of Objective Functions for Organs with Parallel and Serial Architecture. *Australasian Physical and Engineering Sciences in Medicine*, 20, 1, 1997,

26. Stavreva N. Stavrev P., Round WH. A Mathematical Approach to Optimizing the Radiation Dose Distribution in Heterogeneous Tumours. *Acta Oncologica* 35, 6, 1996, p727

25. PV Stavrev, NA Stavreva, WH Round. A New Method for Optimum Dose Distribution Determination Taking Tumour Mobility into Account. *Physics in Medicine and Biology*, 41, (1996), p1679-1689,

24. NA Stavreva, PV Stavrev, WH Round. A Variational Approach to the Problem of Optimizing the Radiation Dose Distribution in Tumours. *Australasian Physical and Engineering Sciences in Medicine*, vol. 19, No 1, 1996, p9,

23. Stavreva N. Stavrev P., Round WH. Comment on 'A model for calculating tumour control probability in radiotherapy including the effects of inhomogeneous distributions of dose and clonogenic cell density' by Webb and Nahum, Letter to the Editor. *Physics in Medicine and Biology*, 40, (1995), p1731-1738,

22. N.Stavreva, V.Ruseva, D.Michailova, P.Stavrev. New Algorithm for Analysis of Data Obtained by Means of Circular Dichroism Titration Method. *Arzneimittel Forschung (Drug Research)*, 43(I), 73, 1993,

21. IA Fomin, DV Shopova, PV Stavrev. Nonlinear Theory of Relaxation of Unstable Magnetization Precession in $^3\text{He-A}$. *Journ. Exp. &Theor. Phys.*, v. 99, 1991, 1,

20. I. J. Lalov, R. D. Atanasov, P. V. Stavrev. Nonlinear optical susceptibility and vibronic spectra of helical polymers. Proc. of 1st General Conference of the Balkan Phys. Union, 1991 sept. 26-28, Thessaloniki, Greece, Volume 1, 229-231, 410-412 (poster)

19. Kassabov J, Stavrev P, Dimitrov D., A New Approach to MOS Structure Parameters Evaluation using High Frequency Capacity - Voltage Curves . Proc. of 6th International School on Physical Problems in Microelectronics ISPPME, Varna, Bulgaria, Editor: Kassabov, J. ISBN 9971509768. Publisher: Singapore ; Teaneck, N.J. : World Scientific, c1989, p381-391
18. Stavrev P., Gavritova-Stavreva N. , Petrov S. J. Mass composition of Cosmic Rays with $E \sim 10^{14} - 10^{16}$ eV. New treatment of Tien-Shan and Akeno data. J. Phys. G:Nucl. Phys. (1992), p1832,
17. H. P. Vankov and P. V. Stavrev. Electromagnetic Cascading of Ultra - High Energy Photons ($E > 5 \times 10^{17}$ eV) in the Earth's Magnetic Field. Physics Letters B, v. 266, 1991,
16. S. Abdrashitov, Yu. Vasilyuk, N. Gavritova-Stavreva, V. Zhukov, S. Zujkov, A. Morozov, S. Nikolsky, A. Smirnov, P. Stavrev, V. Yakovlev. Array for cascade's form investigation with energies 10¹³-10¹⁵ eV using the cherenkov radiation in the atmosphere. Preprint 189 P. N. Lebedev FIAN Moscow 1989
15. P. Stavrev, N. Stavreva, Ch. Vankov, K. Barkalov, V. Yakovlev. Analysis of the Dependence of the Time and Amplitude Characteristics of a Scintillation Detector on its Box Geometry (in Russian). Bulg. J. Phys. 16 (1989), 2, p 150
14. K. Barkalov, P. Stavrev, N. Nesterova, I. Kirov. Analysis of Extensive Air Showers Zenith and Azimuth Distributions with $E > 0.3$ PeV Observed on the Tien-Shan Cosmic Ray Array (in Russian). Preprint 19 P. N. Lebedev, FIAN 1988
13. N. Gavritova-Stavreva, P. Stavrev, J. Stamenov, K. Barkalov. Methods and conditions for optimal shower's direction estimation. Proc. of 20ICRC, v6, HE7.1-3, p397-400, Moscow (1987)
12. D. Adamov, B. Afanasjev, V. Arabkin, V. Aseikin, K. Barkalov, R. Nam, A. Gulyaev, P. Dyatlov, N. Romakhina, A. Chubenko, A. Dubovy, V. Piskal, B. Kadyrsisov, N. Nikolskaya, N. Nesterova, S. Nikolsky, S. Shaulov, V. Pavluchenko, P. Stavrev, N. Vildanov, L. Vildanova, A. Smirnov, Yu. Vasilyuk, V. Zhukov, V. Yakovlev. Phenomenological Characteristics of EAS with $Ne = 2.105 - 2.107$ Obtained by the Modern Tien-Shan Installation "HADRON". Proc. of 20ICRC, v5, HE3.1-21, p460, Moscow (1987). <http://adsabs.harvard.edu/full/1987ICRC....5..460A>
11. D. Adamov, V. Arabkin, K. Barkalov, R. Nam, A. Chubenko, A. Dubovy, V. Piskal, B. Kadyrsisov, N. Nikolskaya, N. Nesterova, S. Nikolsky, V. Pavluchenko, P. Stavrev, N. Vildanov, S. Shaulov. Investigation of the Nuclear Interactions on the Modern Tien-Shan Installation "HADRON". Proc. of 20ICRC, v5, HE3.5-5, p144, Moscow (1987)
10. K. Barkalov, A. Dubovy, N. Gavritova-Stavreva, P. Stavrev, S. Nikolsky, V. Pavluchenko, J. Stamenov. EAS Front Fluctuations. Proc. of 20ICRC, v6, HE3.3-5, p67-70, Moscow (1987) <http://articles.adsabs.harvard.edu/full/1987ICRC....6..67B>
9. A. Serdyukov, P. Stavrev, V. Yakovlev. Unstable Particles in the Cascades Initiated by Single Hadrons with Energies above 5 TeV in a Calorimeter with Lead Absorber. Proc. of 20ICRC, v6, HE6.2-1, p356-59, Moscow (1987). <http://articles.adsabs.harvard.edu/full/1987ICRC....6..356S>

8. J. Stamenov, P. Stavrev. Errors' Estimation of EAS Axis Angular Coordinates Determination (in Russian). Voprosy Atomnoi Nauki i Tehniki (VANI-T-Yerevan), (1987) 2/33/ p48
7. K.Barkalov, A.Dubovy, P.Dyatlov, N.Nesterova, P.Stavrev. About Cross-Section Increase of Hadron Interaction with Atmospheric Atomic Nuclei Based on the Altitude Dependence of EAS with $E > 10$ PeV (in Russian). Kratkie soobstvenia po fizike ,1987,12,p 25,
6. N. Aliev, T. Alimov, M. Kakharov, B. Machmudov, H. Nasrullaev, N. Sirodyev, N. Hakimov, Yu. Vasiluk, N. Gavritova-Stavreva, V. Zhukov, A. Morozov, S. Nikolsky, A. Smirnov, P. Stavrev, V. Yakovlev. Cherenkov Detector for Atmospheric High-Energy Cascades Investigation (in Russian). Izvestiy AN SSSR, ser. fiz., t. 50 N 11 (1986)
5. S. Abdrashitov D. Adamov, V. Arabkin, V. Asejkin, B. Afanasiev, K. Barkalov, R. Bejzenbaev, Yu. Vasiluk, N. Vildanov, L. Vildanova, N. Gavritova-Stavreva, A. Guliaew, A. Dubovy, P. Diatlov V. Zhukov,B. Kadyrsizov, A. Kvashnin, A. Kolchin, A. Kruglov, A. Morozov, R. Nam, S. Nasonov, N. Nesterova, N. Nikolskaya, S. Nikolsky, V. Pavluchenko, Piskal, N. Romachina, V. Rubcov, A. Serdukov, A. Sizincev, A. Smirnov, P. Stavrev, K. Cherdynceva, A. Chubenko, S. Shaulow, V. Yakovlev. "Hadron" Array for Investigation of Primary Cosmic Rays and Characteristics of Nuclear Interactions in the Atmosphere (in Russian). (APPARATUS-HADRON FOR THE ANALYSIS OF INITIAL COSMIC EMISSION - CHARACTERISTICS OF NUCLEAR-INTERACTIONS IN ATMOSPHERE) S. Abdrashitov, Izvestiya AN USSR, ser. fiz., 50 N 11, p2203-2207 (1986)
4. J. Procureur, J. Stamenov, P. Stavrev, S. Ushev. J. Analysis of the Electron and Muon Components of Extensive Air Showers at an Observation Level of 700 g cm^{-2} with the Help of a Scale Breaking Interaction Model. Phys. G:Nucl. Phys. v11, N12, p1377-1386, (1985),
3. Procureur, JN Stamenov, PV Stavrev, SZ Ushev. Analysis of the Hadron Component in EAS Observed at 700 g.cm^{-2} by Scale Braking Model. J Proc. of 19ICRC, HE4.1-5,p9-12, La Jolla (1985) <http://articles.adsabs.harvard.edu/full/1985ICRC....7....9P>
2. J Procureur, JN Stamenov, PV Stavrev, SZ Ushev. Analysis of the Electron and Muon Components in EAS Observed at 700 g.cm^{-2} using a Scale Braking Model and 'Gamaisation' Hypothesis. Proc. of 19ICRC, HE5.4-8, p184-87, La Jolla (1985) <http://articles.adsabs.harvard.edu/full/1985ICRC....8..184P>
1. S.Kavlovakov, P.Stavrev. Zenith Angle Distribution Of The Cosmic Ray Muon Component. Acta Physica Slovaca v. 34 (1984) No. 2-3,

LIST OF CONFERENCE PRESENTATIONS

84. Stavrev, P., Stavreva, N., Nahum, A., Ruggieri, R., P. Tsonev, Pressyanov, D. EP-1917 Variable versus conventional inter-fraction intervals in SBRT. April 2019. Radiotherapy and Oncology 133:S1042, DOI: 10.1016/S0167-8140(19)32337-0, ESTRO
83. N. Stavreva, P. Stavrev, D Penev, Nahum A., Ruggieri R., Pressyanov D. EP-1894 On the possibility of estimating the radiosensitivity range in a cell mixture. April 2019. Radiotherapy and Oncology 133:S1029 DOI:10.1016/S0167-8140(19)32314-X, ESTRO
82. P. Stavrev, N. Stavreva, A. Nahum, D. Pressyanov. EP-1987: TCP and Gaussian Radiosensitivities. Radiotherapy and Oncology 127:S1080-S1081, April 2018, ESTRO
81. N. Stavreva, P. Stavrev, D Penev. EP-1988: Impact of natural tumor cell death on TCP. Radiotherapy and Oncology 127:S1081, April 2018, ESTRO
80. A. Balabanova, B. Genova, P. Stavrev. EP-2240: HDR prostate brachytherapy database: preliminary dosimetric and radiobiological analysis. Radiotherapy and Oncology 127:S1238, April 2018, ESTRO
79. Ruggieri, R. S. Naccarato, P. Stavrev, N. Stavreva, S. Pasetto, I. Salamone, F. Alongi. EP-1483: Reference dosimetry of FFF MV photon beams: a correction for intra-Farmer ion chamber dose gradients. 2016 Rad. and Oncol. Volume 119 , Supplement 1, S685 - S686; ESTRO
78. Dosimetric Impact of a Rectal Spacer and an Increased Near Maximum Target Dose in VMAT Prostate SBRT.55 Ruggieri, R. S. Naccarato, Pavel Stavrev, Nadejda Stavreva, Sergio Fersino, Niccolò Giaj Levra, Rosario Mazzola, Pietro Mancosu, Marta Scorsetti, and Filippo Alongi 2015, IJROBP, Volume 93 , Issue 3 , E552 - E553; ASTRO
77. Stavrev, P. R. Ruggieri, N. Stavreva, S. Naccarato, F. Alongi. Radiobiological Assessment of the Impact of a Rectal Spacer and an Increased Near Maximum Target Dose in VMAT Prostate SBRT 6163. 2015 IJROBP, Volume 93 , Issue 3 , E577; ASTRO
76. Ruggieri, R.; Stavreva, N.; Naccarato, Alongi, F.; Nahum, A; Stavrev, P. Comparison of Computed 88% TCP Dose for SBRT of NSCLC from Different Models. 2014 Annual Meeting - American Society for Radiation Oncology (ASTRO), At San Francisco - CA.
75. Ruggieri, R.; Stavreva, N.; Naccarato, S.; Sicignano, G.; Ricchetti, F.; Sanguineti, G.; Stavrev, P. Computed 88% TCP Dose for SBRT of NSCLC. International Journal of Radiation Oncology, Biology, Physics vol. 84 issue 3 November 1, 2012. p. S747, ASTRO's 54th, Annual Meeting, 2012. Boston.USA
74. Stavreva N, Markov K, Stavrev P, A. Nahum, Ruggieri R. TCP-based plan ranking in the case of heterogeneous irradiation – analytical investigation. ESTRO 29, Barcelona - Spain; 2010. Abstract in: Radiotherapy and Oncology, 96 (Supl 1) S611
73. Ruggieri R, Stavreva N, Stavrev P, Menghi E, Naccarato S Fitting a TCP model including reoxygenation to animal data from different schedules. ESTRO 29, Barcelona - Spain; 2010. Abstract in: Radiotherapy and Oncology, 96 (Supl 1) S619-S620

72. Stavrev P, Stavreva N, A. Nahum, Ruggieri R. Study on the applicability of a population TCP model to the case of the heterogeneous irradiation of the tumour. ESTRO 29, Barcelona - Spain; 2010. Abstract in: Radiotherapy and Oncology, 96 (Supl 1) S610-S611
71. Stavrev P, Stavreva N, Nahum AE. Survival Curve Estimates Of Cellular Radiosensitivity, What Do They Represent? 2009 - 10th Biennial ESTRO Conference. 30 Aug.- 3 Sept., Maastricht. Abstract in: Radiotherapy and Oncology, 92 (Suppl.1) (2009) p. S245-S246.
70. Stavreva, N., Stavrev, P., Harting, C.: Fits of TCP models to computer simulated tumor radiation response data. 2009 - 10th Biennial ESTRO Conference. 30 Aug.- 3 Sept., Maastricht. Abstract in: Radiotherapy and Oncology, 92 (Suppl.1) (2009) S 243.
69. Stavrev P, Stavreva N, Markov K, Mihov D. Parameter invariant TCP radiation therapy plan ranking. 51st AAPM Annual Meeting, 26-30 July, Anaheim, California. Abstract in: Med Phys 2009;36:2642.
68. P Stavrev, Copernicus – change of the paradigm. 34 National Conference on Astronomy, 2008, Varna, Bulgaria
67. T Stanescu, H Jans, N Pervez, P Stavrev, Fallone GB. Developments in MRI Simulation of Intracranial Lesions GB Fallone. CARO-COMP, Oct 2007, Toronto, Canada. Radiotherapy And Oncology. 84: S18-S18, 2007
66. Stavrev P, Schinkel C, Stavreva N, Warkentin B, Fallone BG. Population TCP estimators in case of heterogeneous irradiation. . (poster) 9th Biennial Estro Meeting, September 2007, Barcelona, Spain. Radiotherapy And Oncology. 84: S279-S280, 2007
65. Stavreva N, Stavrev P, Fallone BG. Tumor dynamics in external fractionated radiotherapy. (poster) 9th Biennial Estro Meeting, September 2007, Barcelona, Spain. Radiotherapy And Oncology. 84: S282-S282, 2007
64. Stavrev P, Stavreva N, Schinkel C, Fallone BG An objective function for TCP/NTCP curve fitting. AAPM Huntington Quadrangle, Melville, Ny, Medical Physics 34 (6): 2417-2418 JUN 2007 (poster)
63. Stavreva N, Stavrev P, Fallone BG A recursive differential equation approach towards the problem of estimating the probability of M surviving clonogens after the Ith irradiation. AAPM Huntington Quadrangle, Melville, Ny, Usa, Medical Physics 34 (6): 2409-2409 JUN 2007 (poster)
62. Stavrev R Derivation of TCP model parameters from clinical outcome data. RADIOTHERAPY AND ONCOLOGY. 81: S119-S120, ESTRO, Leipzig, 2006. (invited talk)
61. Stanescu, T; Jans, H S; Stavrev, P; Fallone, B G. A Complete MR-Based Treatment Planning Procedure for Radiotherapy of Intracranial Lesions. Medical Physics vol. 33 issue 6 June 2006. p. 2271-2271
60. Stavrev, P., C. Schinkel, N. Stavreva, K. Markov and B. G. Fallone (2006). "SU-FF-T-370: Properties of the Iso-NTCP Envelope (AAPM 48th Annual Meeting, Orlando, FL, July 30 - Aug 3)." Med Phys 33: 2131. (poster) *Deemed a Poster of Special Merit.

59. Schinkel, C., N. Stavreva, M. Carlone, P. Stavrev and B. G. Fallone. "On the equivalence of the population and individual TCP models (AAPM 48th Annual Meeting, Orlando, FL, July 30 - Aug 3)." *Med Phys* 33: 2125 (2006) (poster)
58. C. Schinkel, P. Stavrev, N. Stavreva, B. G. Fallone. Theoretical estimation of dose-volume constraints and their impact on DVH selection. COMP 2006 Annual Meeting, Saskatoon, SK, May 31 – June 3, 2006. (talk) *Medical Physics* vol. 33 issue 7 July 2006. p. 2673-2673
57. Carlone M, Warkentin B, Stavrev P, et al. Evaluation of the limits of accuracy of the high heterogeneity TCP model *MEDICAL PHYSICS* Volume: 32 Issue: 6 Pages: 2036-2036 Published: JUN 2005
56. Carlone M, Warkentin B, Stavrev P, et al. Theory of parameter correlation in a population tumor control model assuming high heterogeneity in the radiosensitivity. *MEDICAL PHYSICS* Volume: 32 Issue: 6 Pages: 2037-2037 Published: JUN 2005
55. Stavrev P, Weldon M, Warkentin B, et al. Fitting the Zaider-Minerbo TCP model to cell megacolony culture dose response in vitro data. *MEDICAL PHYSICS* Volume: 32 Issue: 6 Pages: 2036-2036 Published: JUN 2005
54. Stavreva N, Warkentin B, Stavrev P, et al. Tumor resensitization during fractionated radiotherapy: Modeling and fitting data from animal experiments. *MEDICAL PHYSICS* Volume: 32 Issue: 6 Pages: 2037-2038 Published: JUN 2005
53. C. G. (Schinkel) Ranger, P. Stavrev, N. Stavreva, M. Weldon, R. Scrimger and B. G. Fallone. On the dose-volume constraints based on radiobiological considerations. AAPM 47th Annual Meeting, Seattle, WA, July 24 – 28, 2005. (talk) *Medical Physics* vol. 32 issue 6 June 2005. p. 2062-2062
52. C. G. (Schinkel) Ranger, P. Stavrev, M. Weldon, N. Stavreva, R. Scrimger and B. G. Fallone. Reverse NTCP mapping and the problem of physical dose-volume constraint estimation. "Cancer Research Across the Spectrum: National Meeting for Trainees", Mont Tremblant, QC, May 9 – 11, 2005. (talk)
51. P Stavrev, N Stavreva, A Franko and BG Fallone. Critical Volume Model Analysis Of Lung Complication Data From Different Mice Strains 7th Biennial ESTRO Meeting on Physics", Geneva, 13-18 September 2003 (oral)
50. P. Stavrev, N. Stavreva, D. Hristov, B. Fallone. Reverse Mapping Of Normal Tissue Complication Probabilities Onto Dose Volume Histogram Space: Problem Formulation, Illustration, And Implications. Proc. of World Congress on Medical Physics and Biomedical Engineering, 24 - 29 August 2003, Sydney, Australia (talk)
49. B. Warkentin, N. Stavreva, P. Stavrev, B. Fallone. Cell Repopulation, the LQ Model and Partial Repair as Reflected by Fractionated Animal Data. *MED PHYS* 30 (6): 1331 JUN 2003 (talk)
48. P. Stavrev, R. Scrimger, M. Parliament, N. Stavreva, C. Field, H. Thompson, B. Fallone. Lyman's Model and the Conjugated Minima. *MED PHYS* 30 (6): 1392-1393 JUN 2003 (talk)

47. P. Stavrev, C. Field, M. Parliament, B. Warkentin, N. Stavreva, B.G. Fallone Preliminary Results From the Multi-Model Analysis of Bladder and Rectum Complication Data. MED PHYS 30 (6): 1393 JUN 2003 (talk)
46. N. Stavreva, P. V. Stavrev, B. Warkentin, G. Fallone. Linear quadratic mechanism of cell damage vs single hit and repopulation. A macroscopic view. Is the quadratic term of cell radiation-damage important for the treatment outcome? N. A. Stavreva, Proc. of 49nd Annual General Meeting of the Canadian Organization of Medical Physicists (COMP), Edmonton, Alberta, June 5-7, p142, 2003 & MED PHYS 30 (7): 1948-1948 JUL 2003 (talk)
45. Warkentin B, P. Stavrev, N. Stavreva, C. Field, B.G. Fallone. A TCP/NTCP estimation module based on known models, parameter sets and DVHs. B. Proc. of 49nd Annual General Meeting of the Canadian Organization of Medical Physicists (COMP), Edmonton, Alberta, June 5-7, p139, 2003 & MED PHYS 30 (7): 1948-1948 JUL 2003 (talk)
44. Hristov, D., Stavrev, P., Sham, E., and Falone, B. G. (2002). "A method for the implementation of dose-volume objectives in gradient algorithms for inverse treatment planning." Med Phys, 29(6), 1255-1255. (poster)
43. Stavrev, P., Hristov, D., Field, C., and Fallone, G. B. (2002). "Fractionation correction to Lyman's model." Med Phys, 29(6), 1248-1248. (poster)
42. Stavrev, P., Warkentin, B., Stavreva, N., and Fallone, B. G. (2002). "Evaluation of a closed-form tumor control probability solution." Med Phys, 29(6), 1248-1248. (talk)
41. Stavreva, N., and Stavrev, P. (2002). "Note on some limitations of the Kallman "Relative seriality" normal tissue complication probability model." Med Phys, 29(6), 1248-1248. (poster)
40. Underwood, L., Murray, B., Robinson, D., Stavrev, P., Laassami, R., Halls, S., and Roa, W. (2002) "Dose-Escalation With Intensity-Modulated Radiotherapy For Cns Tumors Near The Optic Chiasm: Feasibility And Expected Outcome." CARO, Toronto.
39. Amanie, J., Robinson, D., Murray, B., Field, C., Stavrev, P., Hennig, R., and Roa, W. (2002) "A Comparison Of Intensity Modulated And Three Dimensional Conformal Radiotherapy Plans In RTOG 93-11 Patients With Stage Iiib Non-Small Cell Lung Cancer." CARO, Toronto.
38. Munroe, M., Parliament, M., Scrimger, R., Field, C., Stavrev, P., Thompson, H., and Santon, L. (2002) "Comparison of Inverse-Planned Intensity Modulated Radiotherapy (IMRT) And Helical Tomotherapy with Conventional Radiotherapy for a Nasopharyngeal Cancer Patient." CARO, Toronto.
37. Scrimger, R., Stavrev, P., Parliament, M., Field, C., and Thompson, H. (2002) "Physical Parameters To Describe Normal Tissue Complication Probability (NTCP) For Parotid Gland Irradiation With Intensity-Modulated Radiotherapy (IMRT)." CARO, Toronto.
36. P. Stavrev, D Hristov, E Sham. IMRT Inverse Treatment Planing Optimization Based on Physical Constrains and Biological Objectives. Proc. of 47nd Annual General Meeting of the Canadian Organization of Medical Physicists (COMP), Kelowna, British Columbia, June 12-14, 2001. (talk)

35. D Hristov, E Sham, P. Stavrev, G Falone. Large-Scale Constrained Optimization for Inverse Treatment Planning. Proc. of 47nd Annual General Meeting of the Canadian Organization of Medical Physicists (COMP), Kelowna, British Columbia, June 12-14, 2001. (talk)
34. E Sham, D Hristov, P. Stavrev, G Falone. Inverse Treatment Planning by Simulated Annealing Minimization of a Dose-Volume Cost Function. Proc. of 47nd Annual General Meeting of the Canadian Organization of Medical Physicists (COMP), Kelowna, British Columbia, June 12-14, 2001. (poster)
33. A Bayesian Approach to the Problem of Calculating the Confidence Limits of the Probability of Success in Animal Experiments and Clinical Studies. Stavrev PV Stavrev NA 43 AAPM Annual Meeting, Salt Lake City, July 22-26, 2001 (poster)
32. The Slope of the Dose-Response Curve for Tumors Versus Normal Organs. Stavrev PV, Niemierko A, Suit H, 43 AAPM Annual Meeting, Salt Lake City, July 22-26, 2001 (poster)
31. Applying biological models to the treatment of hyper and conventional fractionated radiotherapy in animal experiments. Stavrev PV and Hristov DH, 43 AAPM Annual Meeting, Salt Lake City, July 22-26, 2001 (talk)
30. Prostate IMRT fractionation strategies: two-phase treatment versus simultaneous integrated boost. Stavrev PV and Hristov DH, 43 AAPM Annual Meeting, Salt Lake City, July 22-26, 2001 (talk)
29. Fits to Michigan liver data by the CV model. The problem of correlation between the model parameters. P.Stavrev A.Niemierko N.Stavreva M.Goitein. 41th AAPM Annual Meeting, Nashville, 24-29 July, 1999. Med.Phys., 26, 6, p1122 (talk)
28. General tissue response model. P.Stavrev A.Niemierko N.Stavreva M.Goitein. 41th AAPM Annual Meeting, Nashville, 24-29 July, 1999. Med.Phys., 26, 6, p1130 (poster)
27. Modeling the Dose-Volume Response of the Spinal Cord. N. Stavreva, A. Niemierko, P. Stavrev, M. Goitein. 40th AAPM Annual Meeting, San Antonio, 10-14 August, 1998. Med.Phys., 25, 7, pA106 (talk)
26. Fitting the Critical Volume NTCP Model to the Emami Data. P. Stavrev, A. Niemierko, N. Stavreva, M. Goitein. 40th AAPM Annual Meeting, San Antonio, 10-14 August, 1998. Med.Phys., 25, 7, pA208 (poster)
25. 3D generalization of the iso-local TCP criterion applied to the LQ model of cell damage. P.V. Stavrev, N.A. Stavreva, W.H. Round. Conference of the NZ Branch of the Australasian College of Physical Scientists and Engineers in Medicine, 27-28 November, 1997, Hamilton, NZ. (talk)
24. Dose Distribution Optimization Using a Multi-Target Model of Cell Damage. NA Stavreva, PV Stavrev, WH Round. Radiotherapy and Oncology vol. 40 1996. p. S143, 15th Annual Meeting of ESTRO, 23-26 September, 1996, Vienna. (poster)
23. Dose distribution optimization using a linear-quadratic model of cell damage. Stavrev, P.V.; Stavreva, N.A.; Round, W.H. Radiotherapy and Oncology vol. 40 1996. p. S144 15th Annual Meeting of ESTRO, 23-26 September, 1996, Vienna. (poster)

22. A Variational Approach to the Problem of Optimizing the Radiation Dose Distribution in Tumours when Linear-Quadratic Model of Cell Damage is Assumed. NA Stavreva, PV Stavrev, WH Round. 38th Annual Meeting of AAPM, Philadelphia, 21-26 July, 1996 (poster)
21. A Convolutional Method to Account for Tumour Mobility. P.V. Stavrev, N.A. Stavreva, W.H. Round. 38th Annual Meeting of AAPM, Philadelphia, 21-26 July, 1996 (poster)
20. Dose Distribution Determination Taking the Tumour Mobility into Account. PV Stavrev, NA Stavreva, WH Round. 44th Annual Meeting of RRS, April 14-17, 1996, Chicago, Illinois (poster)
19. A Study of Objective Functions for Organs with Parallel and Serial Architecture. PV Stavrev, NA Stavreva, WH Round. Engineering and Physics in Medicine 95 Conference, Queenstown 20-24.11.1995 (talk)
18. Dose and TCP Estimation Accounting for the Tumour Mobility. PV Stavrev, NA Stavreva, WH Round. Engineering and Physics in Medicine 95 Conference, Queenstown 20-24.11.1995 (talk)
17. A Differential and Variational Approach to Optimizing the Radiation Dose Distribution in Heterogeneous Tumours, Stavreva N. Stavrev P., Round WH. Annual Conference of the NZ Branch of the Australasian College of Physical Scientists and Engineers in Medicine, 23-25 November, 1994, Wellington (talk)
16. Mass composition of Cosmic Rays with $E \sim 10^{15} - 10^{16}$ eV. New treatment of Tien-Shan and Akeno data. Stavrev P., Gavritova-Stavreva N., Petrov S. Proc. of 1st General Conference of the Balkan Phys. Union, 1991 sept. 26-28, Thessaloniki, Greece, Volume 1, 232-234, (poster)
15. Electromagnetic Cascading of Ultra - High Energy Photons ($E > 5 \times 10^{17}$ eV) in the Earth's Magnetic Field. H. P. Vankov and P. V. Stavrev. Proc. of 1st General Conference of the Balkan Phys. Union, 1991 sept. 26-28, Thessaloniki, Greece, Volume 1, 229-231, (poster)
14. Nonlinear optical susceptibility and vibronic spectra of helical polymers. I. J. Lalov, R. D. Atanasov, P. V. Stavrev. Proc. of 1st General Conference of the Balkan Phys. Union, 1991 sept. 26-28, Thessaloniki, Greece, Volume 1, 229-231, 410-412 (poster)
13. Computerized Pharmacokinetic Methods for Optimizing and Individualizing of Drug Therapy. Michailova D, Stavrev P, Dishowski Ch. V National Congress on Clinical Laboratory. Sofia, September 1991
12. Individualizing and Optimizing the treatment with Hinidin. A Pharmacokinetic Approach. Dishowski Ch, Ivanov T, Bardarov V, Michailova D, Stavrev P,. V National Congress on Clinical Laboratory. Sofia, September 1991
11. Pharmacokinetic Approach for Individualization and Optimization of Drug Therapy. Michailova D, Stavrev P, Dishowski Ch. 3rd congress of the Bulgarian Pharmacological society, 1990, Sofia (poster)
10. Numerical Optimization of Spherical Lenses with Quadratic Gradient Index. P. Stavrev, L. Atanasova. Proc. of IV National conference on "Optics and Laser Engineering", May 1989, Varna (poster)

9. A New Algorithm for Analysis of Data Obtained by Means of Circular Dichroism Titration Method . N. Stavreva, V. Ruseva, D. Michailova, P. Stavrev. Proc of V IC Chemistry and Biotechnology of biologically active natural products, 1989, Varna, Bulgaria (poster)
8. A New Approach to MOS Structure Parameters Evaluation using High Frequency Capacity - Voltage Curves . Kassabov J, Stavrev P, Dimitrov D., Proc. of 6th International School on Physical Problems in Microelectronics ISPPME, 23-28 May 1989 Varna, Bulgaria, (poster)
7. Investigation of the Nuclear Interactions on the Modern Tien-Shan Installation "HADRON". D. Adamov, V. Arabkin, K. Barkalov, R. Nam, A. Chubenko, A. Dubovy, V. Piskal, B. Kadyrsisov, N. Nikolskaya, N. Nesterova, S. Nikolsky, V. Pavluchenko, P. Stavrev, N. Vildanov, S. Shaulov. Proc. of 20ICRC, v5, HE3.5-5, p144, Moscow (1987) (talk)
6. Phenomenological Characteristics of EAS with $N_e = 2.105 - 2.107$ Obtained by the Modern Tien-Shan Installation "HADRON". D. Adamov, B. Afanasjev, V. Arabkin, V. Aseikin, K. Barkalov, R. Nam, A. Gulyaev, P. Dyatlov, N. Romakhina, A. Chubenko, A. Dubovy, V. Piskal, B. Kadyrsisov, N. Nikolskaya, N. Nesterova, S. Nikolsky, S. Shaulov, V. Pavluchenko, P. Stavrev, N. Vildanov, L. Vildanova, A. Smirnov, Yu. Vasilyuk, V. Zhukov, V. Yakovlev. Proc. of 20ICRC, v5, HE3.1-21, p460, Moscow (1987) (talk)
5. EAS Front Fluctuations (text in full). K. Barkalov, A. Dubovy, N. Gavritova-Stavreva, P. Stavrev, S. Nikolsky, V. Pavluchenko, J. Stamenov. Proc. of 20ICRC, v6, HE3.3-5, p67, Moscow (1987) (talk)
4. Methods and conditions for optimal shower's direction estimation . N. Gavritova-Stavreva, P. Stavrev, J. Stamenov, K. Barkalov. Proc. of 20ICRC, v6, HE7.1-3, p397, Moscow (1987) (talk)
3. Unstable Particles in the Cascades Initiated by Single Hadrons with Energies above 5 Tev in a Calorimeter with Lead Absorber . A. Serdyukov, P. Stavrev, V. Yakovlev. Proc. of 20ICRC, v6, HE6.2-1, p356, Moscow (1987) (talk)
2. Analysis of the Hadron Component in EAS Observed at 700 g.cm⁻² by Scale Braking Model . J Procureur, JN Stamenov, PV Stavrev, SZ Ushev. Proc. of 19ICRC, HE4.1-5, p9, La Jolla (1985)
1. Analysis of the Electron and Muon Components in EAS Observed at 700 g.cm⁻² using a Scale Braking Model and 'Gamaisation' Hypothesis. J Procureur, JN Stamenov, PV Stavrev, SZ Ushev. Proc. of 19ICRC, HE5.4-8, p184, La Jolla (1985)