# Vadim P Moskvin

List of Publications by Year
in descending order



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|---|---|---|---|
| 69 papers | 894 citations | 516710 16 h-index | 477307 29 g-index |
| 71 all docs | 71 docs citations | 71 times ranked | 1028 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | 150-250 MeV electron beams in radiation therapy. Physics in Medicine and Biology, 2000, 45, 1781-1805. | 3.0 | 107 |
| 2 | Systemic mechanisms and effects of ionizing radiation: A new â¿¿oldâ¿¿ paradigm of how the bystanders and distant can become the players. Seminars in Cancer Biology, 2016, 37-38, 77-95. | 9.6 | 96 |
| 3 | Monte Carlo simulation of the Leksell Gamma KnifeÂ®: II. Effects of heterogeneous versus homogeneous media for stereotactic radiosurgery. Physics in Medicine and Biology, 2004, 49, 4879-4895. | 3.0 | 59 |
| 4 | Analysis of Treatment Planning Time Among Systems and Planners for Intensity-Modulated Radiation Therapy. Journal of the American College of Radiology, 2009, 6, 514-517. | 1.8 | 57 |
| 5 | Monte Carlo simulation of the Leksell Gamma Knife$reg$: I. Source modelling and calculations in homogeneous media. Physics in Medicine and Biology, 2002, 47, 1995-2011. | 3.0 | 46 |
| 6 | Optimization of intensity-modulated very high energy (50â€"250 MeV) electron therapy. Physics in Medicine and Biology, 2002, 47, 1285-1301. | 3.0 | 39 |
| 7 | Dosimetry of very high energy electrons (VHEE) for radiotherapy applications: using radiochromic film measurements and Monte Carlo simulations. Physics in Medicine and Biology, 2014, 59, 5811-5829. | 3.0 | 39 |
| 8 | Use of the Leksell Gamma Knife for Localized Small Field Lens Irradiation in Rodents. Technology in Cancer Research and Treatment, 2003, 2, 449-454. | 1.9 | 37 |
| 9 | Very High Energy Electrons (50 â€" 250 MeV) and Radiation Therapy. Technology in Cancer Research and Treatment, 2002, 1, 105-110. | 1.9 | 36 |
| 10 | Challenges of dosimetry of ultra-short pulsed very high energy electron beams. Physica Medica, 2017, 42, 327-331. | 0.7 | 27 |
| 11 | Feasibility of RACT for 3D dose measurement and range verification in a water phantom. Medical Physics, 2015, 42, 937-946. | 3.0 | 26 |
| 12 | Average depths of electron penetration: use as characteristic depths of exposure. IEEE Transactions on Nuclear Science, 1998, 45, 626-631. | 2.0 | 23 |
| 13 | Dose perturbations at high-Z interfaces in kilovoltage photon beams: comparison with Monte Carlo simulations and measurements. Radiation Physics and Chemistry, 2002, 64, 173-179. | 2.8 | 22 |
| 14 | Development, commissioning, and evaluation of a new intensity modulated minibeam proton therapy system. Medical Physics, 2018, 45, 4227-4237. | 3.0 | 22 |
| 15 | Contamination dose from photoneutron processes in bodily tissues during therapeutic radiation delivery. Medical Physics, 2003, 30, 2849-2854. | 3.0 | 20 |
| 16 | Laser-plasma generated very high energy electrons in radiation therapy of the prostate. Proceedings of SPIE, 2008, , . | 0.8 | 19 |
| 17 | Pitfalls of tungsten multileaf collimator in proton beam therapy. Medical Physics, 2011, 38, 6395-6406. | 3.0 | 16 |
| 18 | Interface dosimetry: measurements and Monte Carlo simulations of low-energy photon beams. Radiation Physics and Chemistry, 2001, 61, 593-595. | 2.8 | 14 |

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|---|---|---|---|
| 19 | Optimization of GATE and PHITS Monte Carlo code parameters for uniform scanning proton beam based on simulation with FLUKA general-purpose code. Nuclear Instruments & Methods in Physics Research B, 2014, 336, 45-54. | 1.4 | 14 |
| 20 | Extrapolated ranges of electrons determined from transmission and projected-range straggling curves. Radiation Physics and Chemistry, 2002, 64, 161-167. | 2.8 | 12 |
| 21 | Evaluation of underdosage in the external photon beam radiotherapy of glottic carcinoma: Monte Carlo study. Radiotherapy and Oncology, 2006, 78, 159-164. | 0.6 | 11 |
| 22 | Lung Tumor Treatment with Very High Energy Electron Beams of 150-250 Mev as Compared to Conventional Megavoltage Photon Beams. International Journal of Radiation Oncology Biology Physics, 2008, 72, S612. | 0.8 | 10 |
| 23 | PENELOPE Monte Carlo engine for treatment planning in radiation therapy with Very High Energy Electrons (VHEE) of 150–250 MeV. , 2010, , . | | 10 |
| 24 | Range shift and dose perturbation with high-density materials in proton beam therapy. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 2685-2692. | 1.4 | 10 |
| 25 | A GEM-based dose imaging detector with optical readout for proton radiotherapy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 694, 271-279. | 1.6 | 10 |
| 26 | A semiâ€empirical model for the therapeutic range shift estimation caused by inhomogeneities in proton beam therapy. Journal of Applied Clinical Medical Physics, 2012, 13, 3-12. | 1.9 | 10 |
| 27 | Lung Cancer Radiation Therapy: Monte Carlo Investigation of â€œUnder Doseâ€•by High Energy Photons. Technology in Cancer Research and Treatment, 2004, 3, 289-294. | 1.9 | 9 |
| 28 | Optimization of GATE and PHITS Monte Carlo code parameters for spot scanning proton beam based on simulation with FLUKA general-purpose code. Nuclear Instruments & Methods in Physics Research B, 2016, 367, 14-25. | 1.4 | 8 |
| 29 | Automation of Monte Carloâ€based treatment plan verification for proton therapy. Journal of Applied Clinical Medical Physics, 2020, 21, 131-138. | 1.9 | 8 |
| 30 | Monte Carlo calculation of charge-deposition depth profile in slabs irradiated by electrons. Nuclear Instruments & Methods in Physics Research B, 1996, 108, 276-281. | 1.4 | 7 |
| 31 | Effect of Scanning Beam for Superficial Dose in Proton Therapy. Technology in Cancer Research and Treatment, 2015, 14, 643-652. | 1.9 | 6 |
| 32 | Pre- and Posttherapy Risk Factors for Vasculopathy in Pediatric Patients With Craniopharyngioma Treated With Surgery and Proton Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2022, 113, 152-160. | 0.8 | 6 |
| 33 | Comment on â€œComparison of secondary neutron dose in proton therapy resulting from the use of a tungsten alloy MLC or a brass collimator systemâ€•[Med. Phys. 38(11), 6248â€“6256 (2011)]. Medical Physics, 2012, 39, 2303-2305. | 3.0 | 5 |
| 34 | Technical Note: Design and characterization of a large diameter parallel plate ionization chamber for accurate integral depth dose measurements with proton beams. Medical Physics, 2020, 47, 3214-3224. | 3.0 | 5 |
| 35 | TH-C-144-01: BEST IN PHYSICS (THERAPY) - Use of Radiation-Induced Ultrasound to Image Proton Dosimetry. Medical Physics, 2013, 40, 546-546. | 3.0 | 5 |
| 36 | A study of primary electron charge deposition near the surface of a target by Monte Carlo simulation. Nuclear Instruments & Methods in Physics Research B, 1998, 134, 1-12. | 1.4 | 4 |

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|---|---|---|---|
| 37 | Acute skin toxicity associated with proton beam therapy in spine and brain patients. Journal of Radiation Oncology, 2014, 3, 195-203. | 0.7 | 4 |
| 38 | Proton Therapy Facility Planning From a Clinical and Operational Model. Technology in Cancer Research and Treatment, 2015, 14, 635-641. | 1.9 | 4 |
| 39 | SU-F-T-156: Monte Carlo Simulation Using TOPAS for Synchrotron Based Proton Discrete Spot Scanning System. Medical Physics, 2016, 43, 3497-3498. | 3.0 | 4 |
| 40 | Charge deposition distributions in targets irradiated by electrons. IEEE Transactions on Nuclear Science, 1997, 44, 1065-1069. | 2.0 | 3 |
| 41 | Design aspects for Very High Energy Electron (150 to 250 MeV) acceleration for use in radiation therapy: Beam shaping, electromagnetic scanning. , 2010, , . | | 3 |
| 42 | Proton therapy delivery method affects dose-averaged linear energy transfer in patients. Physics in Medicine and Biology, 2021, 66, 074003. | 3.0 | 3 |
| 43 | Monte Carlo framework for commissioning a synchrotron-based discrete spot scanning proton beam system and treatment plan verification. Biomedical Physics and Engineering Express, 2021, 7, 045020. | 1.2 | 3 |
| 44 | SU-E-CAMPUS-T-02: Exploring Radiation Acoustics CT Dosimeter Design Aspects for Proton Therapy. Medical Physics, 2014, 41, 382-382. | 3.0 | 3 |
| 45 | Average depths of electron penetration. II. Angular dependence and use to evaluate secondary-electron yield by photons. IEEE Transactions on Nuclear Science, 1999, 46, 910-914. | 2.0 | 2 |
| 46 | Variability of Physics Education in Radiation Oncology Medical Residency Programs. Journal of the American College of Radiology, 2012, 9, 835-838.e1. | 1.8 | 2 |
| 47 | Implementation of a simplified analytical random walk model dose calculation algorithm with nuclear interaction for treatment planning of scanning-beam proton therapy. Biomedical Physics and Engineering Express, 2018, 4, 035023. | 1.2 | 2 |
| 48 | Absorption of fast electrons in thin slabs. IEEE Transactions on Nuclear Science, 1997, 44, 1070-1075. | 2.0 | 1 |
| 49 | Method of trajectory rotation as a Monte Carlo variance reduction technique. Monte Carlo Methods and Applications, 2002, 8, . | 0.8 | 1 |
| 50 | Dose and Dose-Weighted Linear Energy Transfer Brainstem Volumetric Thresholds Associated with MR Signal Changes in Pediatric Patients with Ependymoma Treated with Proton Therapy. International Journal of Radiation Oncology Biology Physics, 2016, 96, S229-S230. | 0.8 | 1 |
| 51 | MO-FG-CAMPUS-TeP3-05: Limitations of the Dose Weighted LET Concept for Intensity Modulated Proton Therapy in the Distal Falloff Region and Beyond. Medical Physics, 2016, 43, 3728-3728. | 3.0 | 1 |
| 52 | A Feasibility Study on Proton Rangeâ€“Based Registration for Patient Positioning in Proton Therapy. International Journal of Radiation Oncology Biology Physics, 2016, 96, S170. | 0.8 | 0 |
| 53 | A Comparison Study Between Spot Scanning Intensity Modulated Proton and Photon Grid Therapy. International Journal of Radiation Oncology Biology Physics, 2016, 96, E672. | 0.8 | 0 |
| 54 | SU-GG-T-547: Optimization and Evaluation of Accuracy of Harvesting Backscattering Electrons Technique. Medical Physics, 2008, 35, 2850-2850. | 3.0 | 0 |

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|---|---|---|---|
| 55 | TH-D-AUD B-06: Variability of Low-Z Inhomogeneity Correction in IMRT/SBRT: A Multi-Institutional Collaborative Study. Medical Physics, 2008, 35, 2985-2985. | 3.0 | 0 |
| 56 | SU-FF-T-328: Dose Perturbation and Range Shift with High-Z Medium in Proton Beam. Medical Physics, 2009, 36, 2597-2597. | 3.0 | 0 |
| 57 | SU-GG-T-385: Dose Perturbation by a Steel Magnetic Injection Port in a Breast Tissue Expander in Proton Radiotherapy: A Monte Carlo Study. Medical Physics, 2010, 37, 3274-3274. | 3.0 | 0 |
| 58 | SUâ€GGâ€Tâ€396: Secondary Neutron Production by a Scanning Proton Beam. Medical Physics, 2010, 37, 3277-3277. | 3.0 | 0 |
| 59 | SU-GG-T-93: Investigation of Various Phantom Materials for Very High Energy Electron (VHEE) Beams 150-250 MeV: A Monte Carlo Study. Medical Physics, 2010, 37, 3205-3205. | 3.0 | 0 |
| 60 | SU-E-T-10: A Computational Model for the Estimation of Biological Dose in a Clinical Proton Beam. Medical Physics, 2011, 38, 3487-3487. | 3.0 | 0 |
| 61 | TU-C-BRB-03: Hazards of a Tungsten Multi-Leaf Collimator in Proton Beam Therapy. Medical Physics, 2011, 38, 3753-3753. | 3.0 | 0 |
| 62 | SU-E-T-483: Factors Contributing to the Increased Proton RBE at the Distal Edge of Bragg Peak. Medical Physics, 2013, 40, 317-317. | 3.0 | 0 |
| 63 | SU-E-T-723: An Effective Atomic Number of the Compounds in Proton Beam Therapy. Medical Physics, 2013, 40, 372-372. | 3.0 | 0 |
| 64 | MO-F-108-08: A Revolving Collimator for Proton Stereotactic Radiosurgery (pSRS). Medical Physics, 2013, 40, 408-408. | 3.0 | 0 |
| 65 | SU-E-T-254: Optimization of GATE and PHITS Monte Carlo Code Parameters for Uniform Scanning Proton Beam Based On Simulation with FLUKA General-Purpose Code. Medical Physics, 2014, 41, 282-282. | 3.0 | 0 |
| 66 | SU-F-T-144: Analytical Closed Form Approximation for Carbon Ion Bragg Curves in Water. Medical Physics, 2016, 43, 3495-3495. | 3.0 | 0 |
| 67 | MO-FG-CAMPUS-TeP3-02: Benchmarks of a Proton Relative Biological Effectiveness (RBE) Model for DNA Double Strand Break (DSB) Induction in the FLUKA, MCNP, TOPAS, and RayStationâ„¢ Treatment Planning System. Medical Physics, 2016, 43, 3727-3728. | 3.0 | 0 |
| 68 | Dose perturbation caused by metallic port in breast tissue expander in proton beam therapy. Biomedical Physics and Engineering Express, 2020, 6, 065037. | 1.2 | 0 |
| 69 | Accuracy of stopping power ratio calculation and experimental validation of proton range with dual-layer computed tomography. Acta OncolÃ³gica, 2022, 61, 864-868. | 1.8 | 0 |