# Ke Sheng

List of Publications by Year
in descending order



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|---|---|---|---|
| 82 papers | 1,812 citations | 236925 25 h-index | 315739 38 g-index |
| 83 all docs | 83 docs citations | 83 times ranked | 1986 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Fixed Beamline Optimization for Intensity Modulated Carbon-Ion Therapy. IEEE Transactions on Radiation and Plasma Medical Sciences, 2022, 6, 288-293. | 3.7 | 2 |
| 2 | Dosimetric impact of interfraction prostate and seminal vesicle volume changes and rotation: A post-hoc analysis of a phase III randomized trial of MRI-guided versus CT-guided stereotactic body radiotherapy. Radiotherapy and Oncology, 2022, 167, 203-210. | 0.6 | 20 |
| 3 | A Prospective Phase II Study of Automated Non-Coplanar VMAT for Recurrent Head and Neck Cancer: Initial Report of Feasibility, Safety, and Patient-Reported Outcomes. Cancers, 2022, 14, 939. | 3.7 | 5 |
| 4 | Reformulated McNamara RBEâ€weighted beam orientation optimization for intensity modulated proton therapy. Medical Physics, 2022, 49, 2136-2149. | 3.0 | 5 |
| 5 | Voxelwise Prediction of Recurrent High-Grade Glioma via Proximity Estimationâ€“Coupled Multidimensional Support Vector Machine. International Journal of Radiation Oncology Biology Physics, 2022, 112, 1279-1287. | 0.8 | 2 |
| 6 | Linear energy transfer weighted beam orientation optimization for intensityâ€modulated proton therapy. Medical Physics, 2021, 48, 57-70. | 3.0 | 15 |
| 7 | Multi-task edge-recalibrated network for male pelvic multi-organ segmentation on CT images. Physics in Medicine and Biology, 2021, 66, 035001. | 3.0 | 6 |
| 8 | ROAD: ROtational direct Aperture optimization with a Decoupled ring-collimator for FLASH radiotherapy. Physics in Medicine and Biology, 2021, 66, 035020. | 3.0 | 8 |
| 9 | Treating Glioblastoma Multiforme (GBM) with super hyperfractionated radiation therapy: Implication of temporal dose fractionation optimization including cancer stem cell dynamics. PLoS ONE, 2021, 16, e0245676. | 2.5 | 8 |
| 10 | Automated Non-Coplanar VMAT for Dose Escalation in Recurrent Head and Neck Cancer Patients. Cancers, 2021, 13, 1910. | 3.7 | 9 |
| 11 | Magnetic resonance imaging-guided stereotactic body radiotherapy for prostate cancer (mirage): a phase iii randomized trial. BMC Cancer, 2021, 21, 538. | 2.6 | 29 |
| 12 | Weak Magnetic Fields Enhance the Efficacy of Radiation Therapy. Advances in Radiation Oncology, 2021, 6, 100645. | 1.2 | 3 |
| 13 | Interfractional Geometric Variations and Dosimetric Benefits of Stereotactic MRI Guided Online Adaptive Radiotherapy (SMART) of Prostate Bed after Radical Prostatectomy: Post-Hoc Analysis of a Phase II Trial. Cancers, 2021, 13, 2802. | 3.7 | 11 |
| 14 | Using neural networks to extend cropped medical images for deformable registration among images with differing scan extents. Medical Physics, 2021, 48, 4459-4471. | 3.0 | 1 |
| 15 | Quantitative Characterization of Tumor Proximity to Stem Cell Niches: Implications on Recurrence and Survival in GBM Patients. International Journal of Radiation Oncology Biology Physics, 2021, 110, 1180-1188. | 0.8 | 2 |
| 16 | Clinical assessment of geometric distortion for a 0.35T MRâ€guided radiotherapy system. Journal of Applied Clinical Medical Physics, 2021, 22, 303-309. | 1.9 | 3 |
| 17 | Evaluation of T2-Weighted MRI for Visualization and Sparing of Urethra with MR-Guided Radiation Therapy (MRgRT) On-Board MRI. Cancers, 2021, 13, 3564. | 3.7 | 11 |
| 18 | DeepMC: a deep learning method for efficient Monte Carlo beamlet dose calculation by predictive denoising in magnetic resonance-guided radiotherapy. Physics in Medicine and Biology, 2021, 66, 035022. | 3.0 | 23 |

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|---|---|---|---|
| 19 | Automatic detection and segmentation of multiple brain metastases on magnetic resonance image using asymmetric UNet architecture. Physics in Medicine and Biology, 2021, 66, 015003. | 3.0 | 34 |
| 20 | Bladder surface dose modeling in prostate cancer radiotherapy: An analysis of motionâ€induced variations and the cumulative dose across the treatment. Medical Physics, 2021, 48, 8024-8036. | 3.0 | 2 |
| 21 | Technical Note: Robust individual thermoluminescence dosimeter tracking using optical fingerprinting. Medical Physics, 2020, 47, 267-271. | 3.0 | 0 |
| 22 | Multimodality image registration in the headâ€andâ€neck using a deep learningâ€derived synthetic CT as a bridge. Medical Physics, 2020, 47, 1094-1104. | 3.0 | 28 |
| 23 | Artificial intelligence in radiotherapy: a technological review. Frontiers of Medicine, 2020, 14, 431-449. | 3.4 | 17 |
| 24 | Analysis of Geometric Performance and Dosimetric Impact of Using Automatic Contour Segmentation for Radiotherapy Planning. Frontiers in Oncology, 2020, 10, 1762. | 2.8 | 13 |
| 25 | Practical Safety Considerations for Integration of Magnetic Resonance Imaging in Radiation Therapy. Practical Radiation Oncology, 2020, 10, 443-453. | 2.1 | 12 |
| 26 | Fractionâ€variant beam orientation optimization for intensityâ€modulated proton therapy. Medical Physics, 2020, 47, 3826-3834. | 3.0 | 3 |
| 27 | Self-channel-and-spatial-attention neural network for automated multi-organ segmentation on head and neck CT images. Physics in Medicine and Biology, 2020, 65, 245034. | 3.0 | 31 |
| 28 | A novel energy layer optimization framework for spotâ€scanning proton arc therapy. Medical Physics, 2020, 47, 2072-2084. | 3.0 | 27 |
| 29 | A sparse orthogonal collimator for small animal intensityâ€modulated radiation therapy. Part II: hardware development and commissioning. Medical Physics, 2019, 46, 5733-5747. | 3.0 | 10 |
| 30 | A sparse orthogonal collimator for small animal intensityâ€modulated radiation therapy part I: Planning system development and commissioning. Medical Physics, 2019, 46, 5703-5713. | 3.0 | 7 |
| 31 | Robust beam orientation optimization for intensityâ€modulated proton therapy. Medical Physics, 2019, 46, 3356-3370. | 3.0 | 28 |
| 32 | Automated 4Ï€ radiotherapy treatment planning with evolving knowledgeâ€base. Medical Physics, 2019, 46, 3833-3843. | 3.0 | 7 |
| 33 | Parallel beamlet dose calculation via beamlet contexts in a distributed multiâ€GPU framework. Medical Physics, 2019, 46, 3719-3733. | 3.0 | 11 |
| 34 | Shape constrained fully convolutional DenseNet with adversarial training for multiorgan segmentation on head and neck <scp>CT</scp> and lowâ€field <scp>MR</scp> images. Medical Physics, 2019, 46, 2669-2682. | 3.0 | 51 |
| 35 | Robust optimization for intensityâ€modulated proton therapy with soft spot sensitivity regularization. Medical Physics, 2019, 46, 1408-1425. | 3.0 | 13 |
| 36 | Image-domain multimaterial decomposition for dual-energy computed tomography with nonconvex sparsity regularization. Journal of Medical Imaging, 2019, 6, 1. | 1.5 | 6 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | 4<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mi>Ï€</mml:mi></mml:mrow></mml:math> plan optimization for cortical-sparing brain radiotherapy. Radiotherapy and Oncology, 2018, 127, 128-135. | 0.6 | 18 |
| 38 | A Prospective 4Ï€ Radiation Therapy Clinical Study in Recurrent High-Grade Glioma Patients. International Journal of Radiation Oncology Biology Physics, 2018, 101, 144-151. | 0.8 | 36 |
| 39 | <scp>VMAT</scp> optimization with dynamic collimator rotation. Medical Physics, 2018, 45, 2399-2410. | 3.0 | 15 |
| 40 | A career path for pure academic medical physicists in radiation oncology should be established. Medical Physics, 2018, 45, 2853-2856. | 3.0 | 1 |
| 41 | Technical Note: Iterative megavoltage CT ( MVCT ) reconstruction using blockâ€matching 3Dâ€transform () Tj ETQq1 1 0.784314 rgBT | 3.0 | 10 |
| 42 | Integrated beam orientation and scanningâ€spot optimization in intensityâ€modulated proton therapy for brain and unilateral head and neck tumors. Medical Physics, 2018, 45, 1338-1350. | 3.0 | 45 |
| 43 | Cochlea-sparing acoustic neuroma treatment with 4Ï€ radiation therapy. Advances in Radiation Oncology, 2018, 3, 100-107. | 1.2 | 11 |
| 44 | Response to â€œin regard to â€œTran A, Zhang J, Woods K, Yu V, Nguyen D, Gustafson G, Rosen L, Sheng K. Treatment planning comparison of IMPT, VMAT and 4Ï€ radiotherapy for prostate casesâ€â€. Radiation Oncology, 2018, 13, 66. | 2.7 | 1 |
| 45 | Performance Comparison of Knowledge-Based Dose Prediction Techniques Based on Limited Patient Data. Technology in Cancer Research and Treatment, 2018, 17, 153303381881115. | 1.9 | 9 |
| 46 | Respiratory motion-resolved, self-gated 4D-MRI using Rotating Cartesian K-space (ROCK): Initial clinical experience on an MRI-guided radiotherapy system. Radiotherapy and Oncology, 2018, 127, 467-473. | 0.6 | 19 |
| 47 | Fully automatic multiâ€organ segmentation for head and neck cancer radiotherapy using shape representation model constrained fully convolutional neural networks. Medical Physics, 2018, 45, 4558-4567. | 3.0 | 164 |
| 48 | Feasibility evaluation of diffusion-weighted imaging using an integrated MRI-radiotherapy system for response assessment to neoadjuvant therapy in rectal cancer. British Journal of Radiology, 2017, 90, 20160739. | 2.2 | 43 |
| 49 | Respiratory motion-resolved, self-gated 4D-MRI using rotating cartesian k-space (ROCK). Medical Physics, 2017, 44, 1359-1368. | 3.0 | 51 |
| 50 | Treatment planning comparison of IMPT, VMAT and 4Ï€ radiotherapy for prostate cases. Radiation Oncology, 2017, 12, 10. | 2.7 | 67 |
| 51 | Radioresistance of the breast tumor is highly correlated to its level of cancer stem cell and its clinical implication for breast irradiation. Radiotherapy and Oncology, 2017, 124, 455-461. | 0.6 | 37 |
| 52 | Deterministic direct aperture optimization using multiphase piecewise constant segmentation. Medical Physics, 2017, 44, 5596-5609. | 3.0 | 12 |
| 53 | Predicting liver SBRT eligibility and plan quality for VMAT and 4Ï€ plans. Radiation Oncology, 2017, 12, 70. | 2.7 | 28 |
| 54 | Longitudinal diffusion MRI for treatment response assessment: Preliminary experience using an MRIâ€guided triâ€cobalt 60 radiotherapy system. Medical Physics, 2016, 43, 1369-1373. | 3.0 | 95 |

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|---|---|---|---|
| 55 | Systematic feasibility analysis of a quantitative elasticity estimation for breast anatomy using supine/prone patient postures. Medical Physics, 2016, 43, 1299-1311. | 3.0 | 5 |
| 56 | A comprehensive formulation for volumetric modulated arc therapy planning. Medical Physics, 2016, 43, 4263-4272. | 3.0 | 17 |
| 57 | Computerized triplet beam orientation optimization for MRIâ€guided Coâ€60 radiotherapy. Medical Physics, 2016, 43, 5667-5675. | 3.0 | 14 |
| 58 | Feasibility of automated 3-dimensional magnetic resonance imaging pancreas segmentation. Advances in Radiation Oncology, 2016, 1, 182-193. | 1.2 | 12 |
| 59 | A novel software and conceptual design of the hardware platform for intensity modulated radiation therapy. Medical Physics, 2016, 43, 917-929. | 3.0 | 14 |
| 60 | Nonlocal Means Denoising of Self-Gated and k-Space Sorted 4-Dimensional Magnetic Resonance Imaging Using Block-Matching and 3-Dimensional Filtering: Implications for Pancreatic Tumor Registration and Segmentation. International Journal of Radiation Oncology Biology Physics, 2016, 95, 1058-1066. | 0.8 | 8 |
| 61 | Viability of Noncoplanar VMAT for liver SBRT compared with coplanar VMAT and beam orientation optimized 4Ï€ IMRT. Advances in Radiation Oncology, 2016, 1, 67-75. | 1.2 | 43 |
| 62 | A treatment planning comparison between modulated tri-cobalt-60 teletherapy and linear acceleratorâ€"based stereotactic body radiotherapy for central early-stage nonâ^'small cell lung cancer. Medical Dosimetry, 2016, 41, 87-91. | 0.9 | 31 |
| 63 | The development and verification of a highly accurate collision prediction model for automated noncoplanar plan delivery. Medical Physics, 2015, 42, 6457-6467. | 3.0 | 53 |
| 64 | Accuracy of UTE-MRI-based patient setup for brain cancer radiation therapy. Medical Physics, 2015, 43, 262-267. | 3.0 | 18 |
| 65 | Noncoplanar beams improve dosimetry quality for extracranial intensity modulated radiotherapy and should be used more extensively. Medical Physics, 2015, 42, 531-533. | 3.0 | 15 |
| 66 | Dose domain regularization of MLC leaf patterns for highly complex IMRT plans. Medical Physics, 2015, 42, 1858-1870. | 3.0 | 23 |
| 67 | Incorporating Cancer Stem Cells in Radiation Therapy Treatment Response Modeling and theÂImplication in Glioblastoma Multiforme Treatment Resistance. International Journal of Radiation Oncology Biology Physics, 2015, 91, 866-875. | 0.8 | 31 |
| 68 | 4Ï€ Noncoplanar Stereotactic Body Radiation Therapy for Head-and-Neck Cancer: Potential to Improve Tumor Control and Late Toxicity. International Journal of Radiation Oncology Biology Physics, 2015, 91, 401-409. | 0.8 | 62 |
| 69 | Near Real-Time Assessment of Anatomic and Dosimetric Variations for Head and Neck Radiation Therapy via Graphics Processing Unitâ€"based Dose Deformation Framework. International Journal of Radiation Oncology Biology Physics, 2015, 92, 415-422. | 0.8 | 16 |
| 70 | Lung dynamic MRI deblurring using lowâ€rank decomposition and dictionary learning. Medical Physics, 2015, 42, 1917-1925. | 3.0 | 3 |
| 71 | Feasibility of magnetic resonance imagingâ€"guided liver stereotactic body radiation therapy: A comparison between modulated tri-cobalt-60 teletherapy and linear acceleratorâ€"based intensity modulated radiation therapy. Practical Radiation Oncology, 2015, 5, 330-337. | 2.1 | 28 |
| 72 | Correlation of Clinical and Dosimetric Parameters With Radiographic Lung Injury Following Stereotactic Body Radiotherapy. Technology in Cancer Research and Treatment, 2015, 14, 411-418. | 1.9 | 8 |

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|---|---|---|---|
| 73 | Feasibility of extreme dose escalation for glioblastoma multiforme using 4Ï€ radiotherapy. Radiation Oncology, 2014, 9, 239. | 2.7 | 42 |
| 74 | Feasibility of using intermediate x-ray energies for highly conformal extracranial radiotherapy. Medical Physics, 2014, 41, 041709. | 3.0 | 11 |
| 75 | Denoised and texture enhanced MVCT to improve soft tissue conspicuity. Medical Physics, 2014, 41, 101916. | 3.0 | 49 |
| 76 | Feasibility of prostate robotic radiation therapy on conventional C-arm linacs. Practical Radiation Oncology, 2014, 4, 254-260. | 2.1 | 38 |
| 77 | Accelerating Dynamic Magnetic Resonance Imaging (MRI) for Lung Tumor Tracking Based on Low-Rank Decomposition in the Spatialâ€“Temporal Domain: AÂFeasibility Study Based on Simulation and Preliminary Prospective Undersampled MRI. International Journal of Radiation Oncology Biology Physics, 2014, 88, 723-731. | 0.8 | 16 |
| 78 | Integral dose investigation of non-coplanar treatment beam geometries in radiotherapy. Medical Physics, 2013, 41, 011905. | 3.0 | 21 |
| 79 | Correlation of Gleason Scores with Diffusion-Weighted Imaging Findings of Prostate Cancer. Advances in Urology, 2012, 2012, 1-5. | 1.3 | 67 |
| 80 | 3D Dose Verification Using Tomotherapy CT Detector Array. International Journal of Radiation Oncology Biology Physics, 2012, 82, 1013-1020. | 0.8 | 16 |
| 81 | A computer simulated phantom study of tomotherapy dose optimization based on probability density functions (PDF) and potential errors caused by low reproducibility of PDF. Medical Physics, 2006, 33, 3321-3326. | 3.0 | 17 |
| 82 | Imaging dose management using multi-resolution in CT-guided radiation therapy. Physics in Medicine and Biology, 2005, 50, 1205-1219. | 3.0 | 8 |