

# Quan Chen

## List of Publications by Year in descending order

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120  
papers

2,536  
citations

212478

28  
h-index

252626

46  
g-index

121  
all docs

121  
docs citations

121  
times ranked

2899  
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of a virtual source model for Monte Carlo-based independent dose calculation for varian linac. Journal of Applied Clinical Medical Physics, 2022, 23, e13556.	0.8	5
2	Evaluating the clinical acceptability of deep learning contours of prostate and organs at risk in an automated prostate treatment planning process. Medical Physics, 2022, 49, 2570-2581.	1.6	25
3	The Impact of Optic Nerve Movement on Intracranial Radiation Treatment. Frontiers in Oncology, 2022, 12, 803329.	1.3	2
4	Head and neck synthetic CT generated from ultra-low-dose cone-beam CT following Image Gently Protocol using deep neural network. Medical Physics, 2022, 49, 3263-3277.	1.6	13
5	Extracellular vesicles released after cranial radiation: An insight into an early mechanism of brain injury. Brain Research, 2022, 1782, 147840.	1.1	5
6	Evaluating Automatic Segmentation for Swallowing-Related Organs for Head and Neck Cancer. Technology in Cancer Research and Treatment, 2022, 21, 153303382211057.	0.8	6
7	Technical Note: Vendor miscalibration of preclinical orthovoltage irradiator identified through independent output check. Medical Physics, 2021, 48, 881-889.	1.6	4
8	Computer automation for physics chart check should be adopted in clinic to replace manual chart checking for radiotherapy. Journal of Applied Clinical Medical Physics, 2021, 22, 4-8.	0.8	2
9	Rigid and Deformable Image Registration for Radiation Therapy: A Self-Study Evaluation Guide for NRG Oncology Clinical Trial Participation. Practical Radiation Oncology, 2021, 11, 282-298.	1.1	26
10	Investigation of absolute dose calibration accuracy for TomoTherapy using real water. Journal of Applied Clinical Medical Physics, 2021, 22, 139-145.	0.8	2
11	Benchmarking of Deformable Image Registration for Multiple Anatomic Sites Using Digital Data Sets With Ground-Truth Deformation Vector Fields. Practical Radiation Oncology, 2021, 11, 404-414.	1.1	12
12	The impact of x-ray incident angle on indirect fluoroscopy skin dose estimation. Biomedical Physics and Engineering Express, 2021, 7, 015005.	0.6	0
13	Convolutional neural network enhancement of fast-scan low-dose cone-beam CT images for head and neck radiotherapy. Physics in Medicine and Biology, 2020, 65, 035003.	1.6	42
14	Deep learning vs. atlas-based models for fast auto-segmentation of the masticatory muscles on head and neck CT images. Radiation Oncology, 2020, 15, 176.	1.2	44
15	Technical note: Atlas-based Auto-segmentation of masticatory muscles for head and neck cancer radiotherapy. Journal of Applied Clinical Medical Physics, 2020, 21, 233-240.	0.8	5
16	A novel, yet simple MLC-based 3D crossfire technique for spatially fractionated GRID therapy treatment of deep-seated bulky tumors. Journal of Applied Clinical Medical Physics, 2020, 21, 68-74.	0.8	13
17	Improving accuracy and robustness of deep convolutional neural network based thoracic OAR segmentation. Physics in Medicine and Biology, 2020, 65, 07NT01.	1.6	22
18	Nonadherence to Standard of Care for Locally Advanced Colon Cancer as a Contributory Factor for High Mortality Rates in Kentucky. Journal of the American College of Surgeons, 2020, 230, 428-439.	0.2	9

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19	STAT RAD: Prospective Dose Escalation Clinical Trial of Single Fraction Scan-Plan-QA-Treat Stereotactic Body Radiation Therapy for Painful Osseous Metastases. <i>Practical Radiation Oncology</i> , 2020, 10, e444-e451.	1.1	10
20	Uterine Corpus Malignancies in Appalachia Kentucky: Incidence, Survival, and Related Health Disparities. <i>Southern Medical Journal</i> , 2020, 113, 29-36.	0.3	2
21	Prostate Segmentation From 3D Mri Using A Two-Stage Model and Variable-Input Based Uncertainty Measure. , 2019, , .		10
22	Impact of backscatter material thickness on the depth dose of orthovoltage irradiators for radiobiology research. <i>Physics in Medicine and Biology</i> , 2019, 64, 055001.	1.6	10
23	A Transfer Learning Approach for Malignant Prostate Lesion Detection on Multiparametric MRI. <i>Technology in Cancer Research and Treatment</i> , 2019, 18, 153303381985836.	0.8	31
24	Deep convolutional neural network for segmentation of thoracic organsâ€”risk using cropped 3D images. <i>Medical Physics</i> , 2019, 46, 2169-2180.	1.6	82
25	Impact of the Affordable Care Act on Colorectal Cancer Screening, Incidence, and Survival in Kentucky. <i>Journal of the American College of Surgeons</i> , 2019, 228, 342-353e1.	0.2	54
26	STAT RT: a prospective pilot clinical trial of Scan-Plan-QA-Treat stereotactic body radiation therapy for painful osseous metastases. <i>Annals of Palliative Medicine</i> , 2019, 8, 221-230.	0.5	11
27	Smoking and Smoking Cessation Among Persons with Tobacco- and Non-tobacco-Associated Cancers. <i>Journal of Community Health</i> , 2019, 44, 552-560.	1.9	24
28	Detection of dose delivery variations on TomoTherapy using on-board detector based verification. <i>Physics in Medicine and Biology</i> , 2018, 63, 14NT02.	1.6	2
29	Population-Based Analysis of Patient Age and Other Disparities in the Treatment of Ovarian Cancer in Central Appalachia and Kentucky. <i>Southern Medical Journal</i> , 2018, 111, 333-341.	0.3	5
30	Investigation of Hot-Spots in TomoDirect 3DCRT Breast Treatment. <i>International Journal of Medical Physics, Clinical Engineering and Radiation Oncology</i> , 2018, 07, 376-390.	0.3	0
31	A transfer learning approach for classification of clinical significant prostate cancers from mpMRI scans. <i>Proceedings of SPIE</i> , 2017, , .	0.8	15
32	Evaluation of Novel <sup>64</sup> Cu-Labeled Theranostic Gadolinium-Based Nanoprobes in HepG2 Tumor-Bearing Nude Mice. <i>Nanoscale Research Letters</i> , 2017, 12, 523.	3.1	13
33	A virtual source model for Monte Carlo simulation of helical tomotherapy. <i>Journal of Applied Clinical Medical Physics</i> , 2015, 16, 69-85.	0.8	11
34	Parallel/Opposed: IMRT QA using treatment log files is superior to conventional measurementâ€”based method. <i>Journal of Applied Clinical Medical Physics</i> , 2015, 16, 4-7.	0.8	42
35	Safety and feasibility of STAT RAD: Improvement of a novel rapid tomotherapy-based radiation therapy workflow by failure mode and effects analysis. <i>Practical Radiation Oncology</i> , 2015, 5, 106-112.	1.1	17
36	Investigation of Nonuniform Dose Voxel Geometry in Monte Carlo Calculations. <i>Technology in Cancer Research and Treatment</i> , 2015, 14, 419-427.	0.8	7

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37	Dosimetric Evaluation of Intensity-Modulated Radiotherapy, Volumetric Modulated Arc Therapy, and Helical Tomotherapy for Hippocampal-Avoidance Whole Brain Radiotherapy. PLoS ONE, 2015, 10, e0126222.	1.1	37
38	Phantomless patient-specific TomoTherapy QA via delivery performance monitoring and a secondary Monte Carlo dose calculation. Medical Physics, 2014, 41, 101703.	1.6	32
39	Helical tomotherapy with dynamic running-start-stop delivery compared to conventional tomotherapy delivery. Medical Physics, 2014, 41, 051709.	1.6	19
40	A nonvoxel-based dose convolution/superposition algorithm optimized for scalable GPU architectures. Medical Physics, 2014, 41, 101711.	1.6	14
41	Dosimetric feasibility of stereotactic body radiation therapy as an alternative to brachytherapy for definitive treatment of medically inoperable early stage endometrial cancer. Radiation Oncology, 2014, 9, 164.	1.2	16
42	microRNA-34a promotes DNA damage and mitotic catastrophe. Cell Cycle, 2013, 12, 3500-3511.	1.3	45
43	SU-E-T-374: A Simple Virtual Source Model for Monte Carlo Simulation of Helical TomoTherapy. Medical Physics, 2013, 40, 290-290.	1.6	0
44	Validation of GPU based TomoTherapy dose calculation engine. Medical Physics, 2012, 39, 1877-1886.	1.6	33
45	3D Dose Verification Using Tomotherapy CT Detector Array. International Journal of Radiation Oncology Biology Physics, 2012, 82, 1013-1020.	0.4	16
46	SU-E-T-337: Dynamic Tomotherapy Delivery with Running-Start-Stop: Comparing to Conventional Tomotherapy and VMAT Deliveries. Medical Physics, 2012, 39, 3781-3781.	1.6	1
47	SU-E-T-26: Evaluation of New Pre-Treatment In-Air Patient Specific QA Software for TomoTherapy Treatments. Medical Physics, 2012, 39, 3708-3708.	1.6	0
48	SU-E-T-32: The Use of Monte Carlo Method as an Independent Dose Verification Calculation Tool for TomoTherapy. Medical Physics, 2012, 39, 3709-3709.	1.6	0
49	SU-E-T-581: Planning Evaluation of Step-And-Shoot IMRT, RapidArc and Helical TomoTherapy for Hippocampal-Avoidance Whole Brain Radiotherapy (HA-WBRT). Medical Physics, 2012, 39, 3839-3839.	1.6	1
50	SU-E-T-23: TomoTherapy Patient QA Using Exit Detector Measurement of Pre-Treatment In-Air Delivery. Medical Physics, 2012, 39, 3707-3707.	1.6	0
51	SU-E-T-505: Evaluation of New Exit Detector Based Transit Dosimetry Software for TomoTherapy Treatments. Medical Physics, 2012, 39, 3614-3614.	1.6	0
52	Theoretical analysis of the thread effect in helical TomoTherapy. Medical Physics, 2011, 38, 5945-5960.	1.6	29
53	Dynamic tomotherapy delivery. Medical Physics, 2011, 38, 3013-3024.	1.6	29
54	A slit method to determine the focal spot size and shape of TomoTherapy system. Medical Physics, 2011, 38, 2841-2849.	1.6	13

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55	Evaluation of tomotherapy MVCT image enhancement program for tumor volume delineation. Journal of Applied Clinical Medical Physics, 2011, 12, 112-121.	0.8	8
56	Monte Carlo-based simulation of dynamic jaws tomotherapy. Medical Physics, 2011, 38, 5230-5238.	1.6	10
57	Ultrafast convolution/superposition using tabulated and exponential kernels on GPU. Medical Physics, 2011, 38, 1150-1161.	1.6	38
58	TomoTherapy MLC verification using exit detector data. Medical Physics, 2011, 39, 143-152.	1.6	20
59	TH-A-220-04: MVCT Noise Reduction and Feature Enhancement for Target Delineation. Medical Physics, 2011, 38, 3846-3846.	1.6	0
60	SU-E-T-862: Planning and Delivery of Voxel-Based Dose Painting Plan Using TomoTherapy. Medical Physics, 2011, 38, 3690-3690.	1.6	0
61	SU-E-T-478: TomoTherapy® with 180 Beam Angles Per Rotation for Small Target Off-Axis Treatment. Medical Physics, 2011, 38, 3599-3599.	1.6	0
62	SU-E-T-783: The TomoTherapy Thread Effect Revisited. Medical Physics, 2011, 38, 3671-3671.	1.6	0
63	TU-C-BRA-10: Non-Voxel-Based-Broad-Beam (NVBB) Framework for EMRT Treatment Planning - III . Ultra-Fast Full Dose Calculation. Medical Physics, 2010, 37, 3383-3383.	1.6	0
64	SU-DD-A1-04: Dose Reconstruction Using Helical Tomotherapy Detector Data. Medical Physics, 2010, 37, 3088-3088.	1.6	0
65	MO-D-BRB-01: Non-Voxel-Based-Broad-Beam (NVBB) Framework for IMRT Treatment Planning-II . Ultra-Fast Intermediate Dose Calculation. Medical Physics, 2010, 37, 3339-3339.	1.6	0
66	MO-D-BRB-08: Non-Voxel-Based-Broad-Beam (NVBB) Framework for IMRT Treatment Planning. Medical Physics, 2010, 37, 3340-3341.	1.6	0
67	SU-GG-T-588: System Integration and Preliminary Dose Verification of Dynamic TomoTherapy Delivery. Medical Physics, 2010, 37, 3322-3322.	1.6	0
68	Real-time motion-adaptive-optimization (MAO) in TomoTherapy. Physics in Medicine and Biology, 2009, 54, 4373-4398.	1.6	24
69	Treatment Planning to Improve Delivery Accuracy and Patient Throughput in Helical Tomotherapy. International Journal of Radiation Oncology Biology Physics, 2009, 74, 1290-1297.	0.4	41
70	Efficient gamma index calculation using fast Euclidean distance transform. Physics in Medicine and Biology, 2009, 54, 2037-2047.	1.6	31
71	SU-FF-T-654: Dynamic TomoTherapy Treatment Delivery. Medical Physics, 2009, 36, 2675-2675.	1.6	0
72	SU-FF-T-291: Verification of In-Vivo Dosimetry in TomoTherapy Treatments. Medical Physics, 2009, 36, 2588-2588.	1.6	0

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73		1.6	85
74	Adaptive fractionation therapy: II. Biological effective dose. Physics in Medicine and Biology, 2008, 53, 5513-5525.	1.6	9
75	Adaptive fractionation therapy: I. Basic concept and strategy. Physics in Medicine and Biology, 2008, 53, 5495-5511.	1.6	23
76	Objective assessment of deformable image registration in radiotherapy: A multi-institution study. Medical Physics, 2008, 35, 5944-5953.	1.6	132
77	SU-GG-T-82: Dynamic Jaw for Helical TomoTherapy Delivery. Medical Physics, 2008, 35, 2744-2745.	1.6	1
78	WE-D-AUD B-04: Dosimetric Evaluation of a Delivery Verification and Dose Reconstruction Method for Helical Tomotherapy. Medical Physics, 2008, 35, 2944-2944.	1.6	2
79	WE-E-AUD A-02: Real-Time Motion-Adapted-Optimization (MAO) Guided TomoTherapy Delivery. Medical Physics, 2008, 35, 2951-2951.	1.6	2
80	SU-GG-T-59: Adaptive Fractionation Therapy - II Biological Effective Dose. Medical Physics, 2008, 35, 2739-2740.	1.6	0
81	TU-FF-A-1A-05: Treatment Planning to Reduce the Impact of Delivery Errors in Helical Tomotherapy. Medical Physics, 2008, 35, 2919-2919.	1.6	0
82	Finite element analysis of tissue deformation with a radiofrequency ablation electrode for strain imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 281-289.	1.7	16
83	Normal and shear strain estimation using beam steering on linear-array transducers. Ultrasound in Medicine and Biology, 2007, 33, 57-66.	0.7	57
84	SU-FF-J-20: A Decision Strategy for Re-Optimization in Adaptive Radiotherapy. Medical Physics, 2007, 34, 2372-2372.	1.6	0
85	SU-FF-A-07: Real Time Motion Adaptive Delivery"II. Tomotherapy. Medical Physics, 2007, 34, 2369-2369.	1.6	0
86	The ultrasonix 500RP: A commercial ultrasound research interface. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 1772-1782.	1.7	38
87	Automatic re-contouring in 4D radiotherapy. Physics in Medicine and Biology, 2006, 51, 1077-1099.	1.6	149
88	Deformable registration of the planning image (kVCT) and the daily images (MVCT) for adaptive radiation therapy. Physics in Medicine and Biology, 2006, 51, 4357-4374.	1.6	137
89	Initial Clinical Experience Imaging Scatterer Size and Strain in Thyroid Nodules. Journal of Ultrasound in Medicine, 2006, 25, 1021-1029.	0.8	33
90	Attenuation estimations using envelope echo data: Analysis and simulations. Ultrasound in Medicine and Biology, 2006, 32, 377-386.	0.7	17

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91	Real-time respiration monitoring using the radiotherapy treatment beam and four-dimensional computed tomography (4DCT)â€”a conceptual study. <i>Physics in Medicine and Biology</i> , 2006, 51, 4469-4495.	1.6	22
92	Spatial-angular compounding for elastography using beam steering on linear array transducers. <i>Medical Physics</i> , 2006, 33, 618-626.	1.6	32
93	SU-FF-J-98: Motion Encoded Beamlets for Optimization and Evaluation in Four-Dimensional (4D) Radiotherapy. <i>Medical Physics</i> , 2006, 33, 2042-2043.	1.6	1
94	SU-FF-J-117: Respiration Monitoring Using Radiotherapy Treatment Beam. <i>Medical Physics</i> , 2006, 33, 2047-2047.	1.6	0
95	SU-FF-T-108: Automatic Machine Commissioning for a Helical Tomotherapy Machine. <i>Medical Physics</i> , 2006, 33, 2073-2073.	1.6	0
96	SU-FF-J-19: Adaptive Radiation Therapy Using Helical Tomotherapy. <i>Medical Physics</i> , 2006, 33, 2024-2024.	1.6	0
97	SU-FF-J-25: An Optimized Dose-Based Patient Alignment Method for On-Line Adaptive Radiotherapy. <i>Medical Physics</i> , 2006, 33, 2025-2026.	1.6	0
98	SU-DD-A3-03: A Dose-Guided Adaptive Therapy Process for Treatment Evaluation and Correction. <i>Medical Physics</i> , 2006, 33, 1988-1988.	1.6	1
99	SU-FF-T-13: A Fast Scan-Plan-Treat Mode for Topographic Breast Treatment Delivery. <i>Medical Physics</i> , 2006, 33, 2053-2053.	1.6	0
100	A general solution for catheter position effects for strain estimation in intravascular elastography. <i>Ultrasound in Medicine and Biology</i> , 2005, 31, 1509-1526.	0.7	11
101	Optimization of angular and frequency compounding in ultrasonic attenuation estimations. <i>Journal of the Acoustical Society of America</i> , 2005, 117, 3307-3318.	0.5	12
102	Ultrasonic Noninvasive Temperature Estimation Using Echoshift Gradient Maps: Simulation Results. <i>Ultrasonic Imaging</i> , 2005, 27, 166-180.	1.4	15
103	Correlation of RF signals during angular compounding. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2005, 52, 961-970.	1.7	19
104	Noise Reduction Using Spatial-Angular Compounding for Elastography. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2004, 51, 510-520.	1.7	32
105	Estimation of Displacement Vectors and Strain Tensors in Elastography Using Angular Insonifications. <i>IEEE Transactions on Medical Imaging</i> , 2004, 23, 1479-1489.	5.4	98
106	Correlation of ultrasonic scatterer size estimates for the statistical analysis and optimization of angular compounding. <i>Journal of the Acoustical Society of America</i> , 2004, 116, 1832-1841.	0.5	12
107	Elastographic versus x-ray CT imaging of radio frequency ablation coagulations: An in vitro study. <i>Medical Physics</i> , 2004, 31, 1322-1332.	1.6	19
108	Semiautomated thermal lesion segmentation for three-dimensional elastographic imaging. <i>Ultrasound in Medicine and Biology</i> , 2004, 30, 655-664.	0.7	13

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109	Simulation study of effects of speed of sound and attenuation on ultrasound lateral resolution. <i>Ultrasound in Medicine and Biology</i> , 2004, 30, 1297-1306.	0.7	39
110	Noise reduction using spatial-angular compounding for elastography. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2004, 51, 510-520.	1.7	25
111	Temperature dependence of ultrasonic propagation speed and attenuation in excised canine liver tissue measured using transmitted and reflected pulses. <i>Journal of the Acoustical Society of America</i> , 2004, 115, 2859-2865.	0.5	111
112	Harmonic Ultrasound Fields Through Layered Liquid Media. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2004, 51, 146-152.	1.7	0
113	Noise reduction using spatial-angular compounding for elastography. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2004, 51, 510-20.	1.7	15
114	Ultrasound Attenuation Imaging Using Compound Acquisition and Processing. <i>Ultrasonic Imaging</i> , 2003, 25, 245-261.	1.4	24
115	Correction for Simultaneous Catheter Eccentricity and Tilt in Intravascular Elastography. <i>Ultrasonic Imaging</i> , 2003, 25, 262-283.	1.4	4
116	<b>Elastographic Measurement of the Area and Volume of Thermal Lesions Resulting from Radiofrequency Ablation:</b> Pathologic Correlation. <i>American Journal of Roentgenology</i> , 2003, 181, 701-707.	1.0	84
117	Ultrasound monitoring of temperature change during radiofrequency ablation: preliminary in-vivo results. <i>Ultrasound in Medicine and Biology</i> , 2002, 28, 321-329.	0.7	135
118	Pressure-dependent attenuation in ultrasound contrast agents. <i>Ultrasound in Medicine and Biology</i> , 2002, 28, 1041-1051.	0.7	68
119	Parametric imaging using a clinical scanner. , 0, , .		2
120	Estimation of displacement vectors and strain tensors in elastography using angular insonifications. , 0, , .		1