

Timothy

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1835043/publications.pdf>

Version: 2024-02-01

131
papers

5,435
citations

57631

44
h-index

106150

65
g-index

131
all docs

131
docs citations

131
times ranked

4935
citing authors

#	ARTICLE	IF	CITATIONS
1	Use of the BrainLAB ExacTrac X-Ray 6D System in Image-Guided Radiotherapy. <i>Medical Dosimetry</i> , 2008, 33, 124-134.	0.4	187
2	First Clinical Investigation of Cone Beam Computed Tomography and Deformable Registration for Adaptive Proton Therapy for Lung Cancer. <i>International Journal of Radiation Oncology Biology Physics</i> , 2016, 95, 549-559.	0.4	172
3	Quality and safety considerations in stereotactic radiosurgery and stereotactic body radiation therapy: Executive summary. <i>Practical Radiation Oncology</i> , 2012, 2, 2-9.	1.1	164
4	Stereotactic radiotherapy for treatment of cavernous sinus meningiomas. <i>International Journal of Radiation Oncology Biology Physics</i> , 2004, 59, 101-111.	0.4	145
5	DoseNet: a volumetric dose prediction algorithm using 3D fully-convolutional neural networks. <i>Physics in Medicine and Biology</i> , 2018, 63, 235022.	1.6	129
6	Prompt Gamma Imaging for InVivo Range Verification of Pencil Beam Scanning Proton Therapy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2017, 99, 210-218.	0.4	127
7	Hepatic irradiation augments engraftment of donor cells following hepatocyte transplantation. <i>Hepatology</i> , 2009, 49, 258-267.	3.6	113
8	Dynamic arc radiosurgery field shaping: a comparison with static field conformal and noncoplanar circular arcs. <i>International Journal of Radiation Oncology Biology Physics</i> , 2001, 49, 1481-1491.	0.4	111
9	<sc>IMRT QA</sc> using machine learning: A multi-institutional validation. <i>Journal of Applied Clinical Medical Physics</i> , 2017, 18, 279-284.	0.8	111
10	Dosimetric Consequences of Intrafraction Prostate Motion. <i>International Journal of Radiation Oncology Biology Physics</i> , 2008, 71, 801-812.	0.4	110
11	Quality assurance for nonradiographic radiotherapy localization and positioning systems: Report of Task Group 147. <i>Medical Physics</i> , 2012, 39, 1728-1747.	1.6	100
12	Intracranial stereotactic positioning systems: Report of the American Association of Physicists in Medicine Radiation Therapy Committee Task Group No. 68. <i>Medical Physics</i> , 2005, 32, 2380-2398.	1.6	94
13	A Deep Look Into the Future of Quantitative Imaging in Oncology: A Statement of Working Principles and Proposal for Change. <i>International Journal of Radiation Oncology Biology Physics</i> , 2018, 102, 1074-1082.	0.4	86
14	Single- and Multi-Fraction Stereotactic Radiosurgery Dose Tolerances of the Optic Pathways. <i>International Journal of Radiation Oncology Biology Physics</i> , 2021, 110, 87-99.	0.4	86
15	MediBoost: a Patient Stratification Tool for Interpretable Decision Making in the Era of Precision Medicine. <i>Scientific Reports</i> , 2016, 6, 37854.	1.6	85
16	Using machine learning to predict radiation pneumonitis in patients with stage I non-small cell lung cancer treated with stereotactic body radiation therapy. <i>Physics in Medicine and Biology</i> , 2016, 61, 6105-6120.	1.6	82
17	Machine Learning in Radiation Oncology: Opportunities, Requirements, and Needs. <i>Frontiers in Oncology</i> , 2018, 8, 110.	1.3	82
18	Clinical decision support of radiotherapy treatment planning: A data-driven machine learning strategy for patient-specific dosimetric decision making. <i>Radiotherapy and Oncology</i> , 2017, 125, 392-397.	0.3	78

#	ARTICLE	IF	CITATIONS
19	Phase versus amplitude sorting of 4D-CT data. <i>Journal of Applied Clinical Medical Physics</i> , 2006, 7, 77-85.	0.8	75
20	Infrared patient positioning for stereotactic radiosurgery of extracranial tumors. <i>Computers in Biology and Medicine</i> , 2001, 31, 101-111.	3.9	71
21	Investigations of a minimally invasive method for treatment of spinal malignancies with LINAC stereotactic radiation therapy: accuracy and animal studies. <i>International Journal of Radiation Oncology Biology Physics</i> , 2002, 52, 1111-1122.	0.4	70
22	Patient specific quality assurance for the delivery of intensity modulated radiotherapy. <i>Journal of Applied Clinical Medical Physics</i> , 2003, 4, 40-50.	0.8	69
23	Expert-augmented machine learning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 4571-4577.	3.3	68
24	An evaluation of gating window size, delivery method, and composite field dosimetry of respiratory-gated IMRT. <i>Medical Physics</i> , 2002, 29, 2517-2525.	1.6	67
25	Quality Assurance of Immobilization and Target Localization Systems for Frameless Stereotactic Cranial and Extracranial Hypofractionated Radiotherapy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2008, 71, S131-S135.	0.4	67
26	Predicting radiation pneumonitis in locally advanced stage II–III non-small cell lung cancer using machine learning. <i>Radiotherapy and Oncology</i> , 2019, 133, 106-112.	0.3	66
27	Beam–specific planning target volumes incorporating 4D CT for pencil beam scanning proton therapy of thoracic tumors. <i>Journal of Applied Clinical Medical Physics</i> , 2015, 16, 281-292.	0.8	64
28	Integrated models incorporating radiologic and radiomic features predict meningioma grade, local failure, and overall survival. <i>Neuro-Oncology Advances</i> , 2019, 1, vdz011.	0.4	64
29	Three-dimensional Fast Imaging Employing Steady-state Acquisition Magnetic Resonance Imaging for Stereotactic Radiosurgery of Trigeminal Neuralgia. <i>Neurosurgery</i> , 2005, 56, E628-E628.	0.6	62
30	The biological effectiveness of antiproton irradiation. <i>Radiotherapy and Oncology</i> , 2006, 81, 233-242.	0.3	60
31	Respiratory correlated cone-beam computed tomography on an isocentric C-arm. <i>Physics in Medicine and Biology</i> , 2005, 50, 5263-5280.	1.6	59
32	Comparative behaviour of the Dynamically Penalized Likelihood algorithm in inverse radiation therapy planning. <i>Physics in Medicine and Biology</i> , 2001, 46, 2637-2663.	1.6	57
33	Absence of multiple local minima effects in intensity modulated optimization with dose–volume constraints. <i>Physics in Medicine and Biology</i> , 2003, 48, 183-210.	1.6	57
34	Experimental observation of acoustic emissions generated by a pulsed proton beam from a hospital–based clinical cyclotron. <i>Medical Physics</i> , 2015, 42, 7090-7097.	1.6	56
35	Evaluation of motion mitigation using abdominal compression in the clinical implementation of pencil beam scanning proton therapy of liver tumors. <i>Medical Physics</i> , 2017, 44, 703-712.	1.6	56
36	Stereotactic radiotherapy for the treatment of lymphocytic hypophysitis. <i>Journal of Neurosurgery</i> , 2003, 99, 591-596.	0.9	55

#	ARTICLE	IF	CITATIONS
37	Building more accurate decision trees with the additive tree. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19887-19893.	3.3	55
38	Monte Carlo treatment planning for stereotactic radiosurgery. Radiotherapy and Oncology, 1998, 49, 73-84.	0.3	52
39	A convolutional neural network algorithm for automatic segmentation of head and neck organs at risk using deep lifelong learning. Medical Physics, 2019, 46, 2204-2213.	1.6	51
40	The application of artificial intelligence in the IMRT planning process for head and neck cancer. Oral Oncology, 2018, 87, 111-116.	0.8	50
41	DoseGAN: a generative adversarial network for synthetic dose prediction using attention-gated discrimination and generation. Scientific Reports, 2020, 10, 11073.	1.6	50
42	Initial Clinical Results of Stereotactic Radiotherapy for the Treatment of Craniopharyngiomas. Technology in Cancer Research and Treatment, 2002, 1, 51-59.	0.8	49
43	The effects of tumor motion on planning and delivery of respiratory-gated IMRT. Medical Physics, 2003, 30, 1052-1066.	1.6	49
44	An unsupervised convolutional neural network-based algorithm for deformable image registration. Physics in Medicine and Biology, 2018, 63, 185017.	1.6	48
45	Radiosurgery performed with the aid of a 3-mm collimator in the subthalamic nucleus and substantia nigra of the vervet monkey. Journal of Neurosurgery, 2001, 95, 990-997.	0.9	47
46	Validation and clinical implementation of an accurate Monte Carlo code for pencil beam scanning proton therapy. Journal of Applied Clinical Medical Physics, 2018, 19, 558-572.	0.8	46
47	Implications of tissue heterogeneity for radiosurgery in head and neck tumors. International Journal of Radiation Oncology Biology Physics, 1995, 32, 235-239.	0.4	45
48	Experimental characterization of two-dimensional spot profiles for two proton pencil beam scanning nozzles. Physics in Medicine and Biology, 2014, 59, 493-504.	1.6	44
49	A study of the beam-specific interplay effect in proton pencil beam scanning delivery in lung cancer. Acta Oncologica, 2017, 56, 531-540.	0.8	44
50	A benchmarking method to evaluate the accuracy of a commercial proton monte carlo pencil beam scanning treatment planning system. Journal of Applied Clinical Medical Physics, 2017, 18, 44-49.	0.8	44
51	Correlation Between Tumor Growth Delay and Expression of Cancer and Host VEGF, VEGFR2, and Osteopontin in Response to Radiotherapy. International Journal of Radiation Oncology Biology Physics, 2008, 72, 918-926.	0.4	43
52	Spinal Cord Tolerance to Reirradiation With Single-Fraction Radiosurgery: A Swine Model. International Journal of Radiation Oncology Biology Physics, 2012, 83, 1031-1037.	0.4	43
53	Breaking bad IMRT QA practice. Journal of Applied Clinical Medical Physics, 2015, 16, 154-165.	0.8	43
54	<i>Ex vivo</i> validation of a stoichiometric dual energy CT proton stopping power ratio calibration. Physics in Medicine and Biology, 2018, 63, 055016.	1.6	42

#	ARTICLE	IF	CITATIONS
55	An artificial intelligence framework integrating longitudinal electronic health records with real-world data enables continuous pan-cancer prognostication. <i>Nature Cancer</i> , 2021, 2, 709-722.	5.7	41
56	High Dose Per-Fraction Irradiation of Limited Lung Volumes Using an Image-Guided, Highly Focused Irradiator: Simulating Stereotactic Body Radiotherapy Regimens in a Small-Animal Model. <i>International Journal of Radiation Oncology Biology Physics</i> , 2010, 77, 895-902.	0.4	40
57	Use of a novel two-dimensional ionization chamber array for pencil beam scanning proton therapy beam quality assurance. <i>Journal of Applied Clinical Medical Physics</i> , 2015, 16, 270-276.	0.8	38
58	Attention-enabled 3D boosted convolutional neural networks for semantic CT segmentation using deep supervision. <i>Physics in Medicine and Biology</i> , 2019, 64, 135001.	1.6	37
59	A Monte Carlo based phase space model for quality assurance of intensity modulated radiotherapy incorporating leaf specific characteristics. <i>Medical Physics</i> , 2002, 29, 2952-2958.	1.6	36
60	Spinal Cord Tolerance to Single-Fraction Partial-Volume Irradiation: A Swine Model. <i>International Journal of Radiation Oncology Biology Physics</i> , 2011, 79, 226-232.	0.4	36
61	Experimentally validated pencil beam scanning source model in TOPAS. <i>Physics in Medicine and Biology</i> , 2014, 59, 6859-6873.	1.6	35
62	Attention-Aware Discrimination for MR-to-CT Image Translation Using Cycle-Consistent Generative Adversarial Networks. <i>Radiology: Artificial Intelligence</i> , 2020, 2, e190027.	3.0	35
63	CT-based dosimetry calculations for 125I prostate implants. <i>International Journal of Radiation Oncology Biology Physics</i> , 1999, 45, 1347-1353.	0.4	34
64	Reduction of Hippocampal-Kindled Seizure Activity in Rats by Stereotactic Radiosurgery. <i>Experimental Neurology</i> , 1998, 154, 691-695.	2.0	33
65	Radiation dose in Spiral CT: The relative effects of collimation and pitch. <i>Medical Physics</i> , 1999, 26, 409-414.	1.6	33
66	Radiosurgery and Stereotactic Radiation Therapy of Skull Base Meningiomas: Proposal of a Grading System. <i>Stereotactic and Functional Neurosurgery</i> , 2001, 76, 218-229.	0.8	33
67	Commissioning and initial stereotactic ablative radiotherapy experience with Vero. <i>Journal of Applied Clinical Medical Physics</i> , 2014, 15, 205-225.	0.8	33
68	An Orthotopic Lung Tumor Model for Image-Guided Microirradiation in Rats. <i>Radiation Research</i> , 2010, 174, 62-71.	0.7	32
69	AN ARTERIOVENOUS MALFORMATION MODEL FOR STEREOTACTIC RADIOSURGERY RESEARCH. <i>Neurosurgery</i> , 2007, 61, 152-159.	0.6	31
70	Preoperative and postoperative prediction of long-term meningioma outcomes. <i>PLoS ONE</i> , 2018, 13, e0204161.	1.1	31
71	A Nonhuman Primate Model of Human Radiation-Induced Venocclusive Liver Disease and Hepatocyte Injury. <i>International Journal of Radiation Oncology Biology Physics</i> , 2014, 88, 404-411.	0.4	30
72	Experimental verification and clinical implementation of a commercial Monte Carlo electron beam dose calculation algorithm. <i>Medical Physics</i> , 2008, 35, 1028-1038.	1.6	27

#	ARTICLE	IF	CITATIONS
73	Antiproton radiotherapy. <i>Radiotherapy and Oncology</i> , 2008, 86, 14-19.	0.3	27
74	Spinal cord tolerance to single-session uniform irradiation in pigs: Implications for a dose-volume effect. <i>Radiotherapy and Oncology</i> , 2013, 106, 101-105.	0.3	26
75	Quantitative assessment of anatomical change using a virtual proton depth radiograph for adaptive head and neck proton therapy. <i>Journal of Applied Clinical Medical Physics</i> , 2016, 17, 427-440.	0.8	26
76	Toward improved target conformity for two spot scanning proton therapy delivery systems using dynamic collimation. <i>Medical Physics</i> , 2016, 43, 1421-1427.	1.6	25
77	Quantifying the interplay effect in prostate IMRT delivery using a convolution-based method. <i>Medical Physics</i> , 2008, 35, 1703-1710.	1.6	24
78	Segmental and dynamic intensity-modulated radiotherapy delivery techniques for micro-multileaf collimator. <i>Medical Physics</i> , 2003, 30, 1758-1767.	1.6	23
79	Image-guided radiotherapy using a mobile kilovoltage x-ray device. <i>Medical Dosimetry</i> , 2006, 31, 40-50.	0.4	22
80	Commissioning and verification of the collapsed cone convolution superposition algorithm for SBRT delivery using flattening filter-free beams. <i>Journal of Applied Clinical Medical Physics</i> , 2014, 15, 39-49.	0.8	22
81	Dosimetric parameters of three new solid core I-125 brachytherapy sources. <i>Journal of Applied Clinical Medical Physics</i> , 2002, 3, 119-134.	0.8	21
82	Improvements in prostate brachytherapy dosimetry due to seed stranding. <i>Brachytherapy</i> , 2007, 6, 44-48.	0.2	21
83	Targeting accuracy of an image guided gating system for stereotactic body radiotherapy. <i>Physics in Medicine and Biology</i> , 2005, 50, 5443-5462.	1.6	20
84	Non-coplanar automatic beam orientation selection in cranial IMRT: a practical methodology. <i>Physics in Medicine and Biology</i> , 2009, 54, 1337-1368.	1.6	20
85	Comparison of transabdominal ultrasound and electromagnetic transponders for prostate localization. <i>Journal of Applied Clinical Medical Physics</i> , 2010, 11, 57-67.	0.8	20
86	A comparison of radiographic techniques and electromagnetic transponders for localization of the prostate. <i>Radiation Oncology</i> , 2012, 7, 101.	1.2	20
87	Biological effectiveness of antiproton annihilation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004, 221, 210-214.	0.6	19
88	A technique for pediatric total skin electron irradiation. <i>Radiation Oncology</i> , 2012, 7, 40.	1.2	19
89	Optimization of normalized prescription isodose selection for stereotactic body radiation therapy: Conventional vs robotic linac. <i>Medical Physics</i> , 2013, 40, 051705.	1.6	19
90	Fast, accurate photon beam accelerator modeling using <sc>BEAMnrc</sc>: A systematic investigation of efficiency enhancing methods and cross-section data. <i>Medical Physics</i> , 2009, 36, 5451-5466.	1.6	18

#	ARTICLE	IF	CITATIONS
91	Biological effectiveness of antiproton annihilation. Nuclear Instruments & Methods in Physics Research B, 2004, 214, 181-185.	0.6	17
92	Degeneracy, frequency response and filtering in IMRT optimization. Physics in Medicine and Biology, 2004, 49, 2853-2880.	1.6	17
93	Stereotactic Radiosurgery of the Rete Mirabile in Swine: A Longitudinal Study of Histopathological Changes. Neurosurgery, 2006, 58, 551-558.	0.6	17
94	Multi-staged robotic stereotactic radiosurgery for large cerebral arteriovenous malformations. Radiotherapy and Oncology, 2013, 109, 452-456.	0.3	17
95	Salvage HDR Brachytherapy: Multiple Hypothesis Testing Versus Machine Learning Analysis. International Journal of Radiation Oncology Biology Physics, 2018, 101, 694-703.	0.4	17
96	Comparing proton treatment plans of pediatric brain tumors in two pencil beam scanning nozzles with different spot sizes. Journal of Applied Clinical Medical Physics, 2015, 16, 41-50.	0.8	16
97	CyberArc: a non-coplanar-arc optimization algorithm for CyberKnife. Physics in Medicine and Biology, 2017, 62, 5777-5789.	1.6	16
98	An athymic rat model of cutaneous radiation injury designed to study human tissue-based wound therapy. Radiation Oncology, 2012, 7, 68.	1.2	15
99	Journey Toward High Reliability: A Comprehensive Safety Program to Improve Quality of Care and Safety Culture in a Large, Multisite Radiation Oncology Department. Journal of Oncology Practice, 2016, 12, e603-e612.	2.5	14
100	Experimental Radiosurgery Simulations Using a Theoretical Model of Cerebral Arteriovenous Malformations. Stroke, 2000, 31, 2466-2477.	1.0	13
101	Dentate gyrus neurogenesis ablation via cranial irradiation enhances morphine self-administration and locomotor sensitization. Addiction Biology, 2018, 23, 665-675.	1.4	13
102	Exploratory analysis using machine learning to predict for chest wall pain in patients with stage I non-small-cell lung cancer treated with stereotactic body radiation therapy. Journal of Applied Clinical Medical Physics, 2018, 19, 539-546.	0.8	13
103	Optimization of multi-slice helical respiration-correlated CT: the effects of table speed and rotation time. Physics in Medicine and Biology, 2005, 50, 5717-5729.	1.6	12
104	Antiproton therapy. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 530-534.	0.6	12
105	Assessing the Validity of Clinician Advice That Patients Avoid Use of Topical Agents Before Daily Radiotherapy Treatments. JAMA Oncology, 2018, 4, 1742.	3.4	12
106	A continuous arc delivery optimization algorithm for CyberKnife m6. Medical Physics, 2018, 45, 3861-3870.	1.6	12
107	Technical and anatomical aspects of novalis stereotactic radiosurgery sphenopalatine ganglionectomy. International Journal of Radiation Oncology Biology Physics, 2006, 66, S53-S57.	0.4	11
108	Development of a locally advanced orthotopic prostate tumor model in rats for assessment of combined modality therapy. International Journal of Oncology, 2013, 42, 1613-1619.	1.4	11

#	ARTICLE	IF	CITATIONS
109	Partial Depletion of Regulatory T Cells Does Not Influence the Inflammation Caused by High Dose Hemi-Body Irradiation. PLoS ONE, 2013, 8, e56607.	1.1	11
110	Implementation of an improved doseâ€perâ€MU model for doubleâ€scattered proton beams to address interbeamline modulation width variability. Journal of Applied Clinical Medical Physics, 2014, 15, 297-306.	0.8	10
111	Technical Note: Validation of halo modeling for proton pencil beam spot scanning using a quality assurance test pattern. Medical Physics, 2015, 42, 5138-5143.	1.6	10
112	Clinical Applications of Quantitative 3-Dimensional MRI Analysis for Pediatric Embryonal Brain Tumors. International Journal of Radiation Oncology Biology Physics, 2018, 102, 744-756.	0.4	10
113	Reproducibility of Frame Positioning for Fractionated Stereotactic Radiosurgery. Journal of Radiosurgery, 1999, 2, 57-64.	0.1	9
114	Dosimetric characteristics of a new linear accelerator under gated operation. Journal of Applied Clinical Medical Physics, 2006, 7, 65-76.	0.8	9
115	Single-Fraction Radiosurgery for Primary and Recurrent Malignant Gliomas. Journal of Radiosurgery, 1998, 1, 155-168.	0.1	8
116	Dosimetric parameters for three low-energy brachytherapy sources using the Monte CarloN-Particle code. Medical Physics, 2002, 29, 662-668.	1.6	8
117	Evaluation of Image Noise in Respiratory Gated PET. IEEE Transactions on Nuclear Science, 2007, 54, 66-70.	1.2	7
118	A feasibility study of ¹⁸ F-fluorodeoxyglucose positron emission tomography targeting and simultaneous integrated boost for intensity-modulated radiosurgery and radiotherapy. Journal of Neurosurgery, 2004, 101 Suppl 3, 381-9.	0.9	7
119	Contrastâ€enhanced Brachytherapy for Prostate Cancer. Academic Radiology, 2002, 9, S182-S184.	1.3	6
120	Functional stereotactic radiosurgery involving a dedicated linear accelerator and gamma unit: a comparison study. Journal of Neurosurgery, 2004, 101 Suppl 3, 373-80.	0.9	6
121	Phantom-to-clinic development of hypofractionated stereotactic body radiotherapy for early-stage glottic laryngeal cancer. Medical Dosimetry, 2017, 42, 90-96.	0.4	5
122	The Potential of Heavy-Ion Therapy to Improve Outcomes for Locally Advanced Non-Small Cell Lung Cancer. Frontiers in Oncology, 2017, 7, 201.	1.3	5
123	Avoiding antiperspirants during breast radiation therapy: Myth or sound advice?. Radiotherapy and Oncology, 2017, 124, 204-207.	0.3	4
124	Stereotactic Body Radiation Therapy: A New Paradigm in Radiotherapy Management of Cancer. Journal of the American College of Radiology, 2008, 5, 673-677.	0.9	3
125	Proton computed tomography using a 1D silicon diode array. Medical Physics, 2016, 43, 5758-5766.	1.6	3
126	A seed specific dose kernel method for low-energy brachytherapy dosimetry. Journal of Applied Clinical Medical Physics, 2003, 4, 66-74.	0.8	2

#	ARTICLE	IF	CITATIONS
127	Pencil beam scanning dosimetry for large animal irradiation. Journal of Radiation Research, 2014, 55, 855-861.	0.8	0
128	Radiation Physics. , 2016, , 148-158.e2.		0
129	The Dark Side of the MedPhys Match. Journal of Applied Clinical Medical Physics, 2017, 18, 4-5.	0.8	0
130	In Reply to Gensheimer and Trister. International Journal of Radiation Oncology Biology Physics, 2018, 102, 1594-1596.	0.4	0
131	Reply to Nock and Nielsen: On the work of Nock and Nielsen and its relationship to the additive tree. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 8694-8695.	3.3	0