Gilmer Valdes

List of Publications by Year
in descending order

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44 papers	1,998 citations	279487 23 h-index	253896 43 g-index
48 all docs	48 docs citations	48 times ranked	2456 citing authors

#	Article	IF	Citations
1	Machine learning algorithms for outcome prediction in (chemo)radiotherapy: An empirical comparison of classifiers. Medical Physics, 2018, 45, 3449-3459.	1.6	214
2	Artificial intelligence in radiation oncology: A specialty-wide disruptive transformation?. Radiotherapy and Oncology, 2018, 129, 421-426.	0.3	175
3	Artificial intelligence and machine learning for medical imaging: A technology review. Physica Medica, 2021, 83, 242-256.	0.4	135
4	<scp>IMRT QA</scp> using machine learning: A multiâ€institutional validation. Journal of Applied Clinical Medical Physics, 2017, 18, 279-284.	0.8	111
5	A Deep Look Into the Future of Quantitative Imaging in Oncology: A Statement of Working Principles and Proposal for Change. International Journal of Radiation Oncology Biology Physics, 2018, 102, 1074-1082.	0.4	86
6	MediBoost: a Patient Stratification Tool for Interpretable Decision Making in the Era of Precision Medicine. Scientific Reports, 2016, 6, 37854.	1.6	85
7	Deep nets vs expert designed features in medical physics: An IMRT QA case study. Medical Physics, 2018, 45, 2672-2680.	1.6	85
8	Using machine learning to predict radiation pneumonitis in patients with stage I non-small cell lung cancer treated with stereotactic body radiation therapy. Physics in Medicine and Biology, 2016, 61, 6105-6120.	1.6	82
9	Machine Learning in Radiation Oncology: Opportunities, Requirements, and Needs. Frontiers in Oncology, 2018, 8, 110.	1.3	82
10	Clinical decision support of radiotherapy treatment planning: A data-driven machine learning strategy for patient-specific dosimetric decision making. Radiotherapy and Oncology, 2017, 125, 392-397.	0.3	78
11	Expert-augmented machine learning. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4571-4577.	3.3	68
12	Machine learning and modeling: Data, validation, communication challenges. Medical Physics, 2018, 45, e834-e840.	1.6	67
13	Predicting radiation pneumonitis in locally advanced stage IIâ€“III non-small cell lung cancer using machine learning. Radiotherapy and Oncology, 2019, 133, 106-112.	0.3	66
14	Integrated models incorporating radiologic and radiomic features predict meningioma grade, local failure, and overall survival. Neuro-Oncology Advances, 2019, 1, vdz011.	0.4	64
15	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
16	Integration of AI and Machine Learning in Radiotherapy QA. Frontiers in Artificial Intelligence, 2020, 3, 577620.	2.0	52
17	The application of artificial intelligence in the IMRT planning process for head and neck cancer. Oral Oncology, 2018, 87, 111-116.	0.8	50
18	An unsupervised convolutional neural network-based algorithm for deformable image registration. Physics in Medicine and Biology, 2018, 63, 185017.	1.6	48

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19	An artificial intelligence framework integrating longitudinal electronic health records with real-world data enables continuous pan-cancer prognostication. Nature Cancer, 2021, 2, 709-722.	5.7	41
20	Use of TrueBeam developer mode for imaging QA. Journal of Applied Clinical Medical Physics, 2015, 16, 322-333.	0.8	35
21	Preoperative and postoperative prediction of long-term meningioma outcomes. PLoS ONE, 2018, 13, e0204161.	1.1	31
22	Radiosensitization of gliomas by intracellular generation of 5-fluorouracil potentiates prodrug activator gene therapy with a retroviral replicating vector. Cancer Gene Therapy, 2014, 21, 405-410.	2.2	30
23	Targeted transfer learning to improve performance in small medical physics datasets. Medical Physics, 2020, 47, 6246-6256.	1.6	29
24	Machine learning for radiation outcome modeling and prediction. Medical Physics, 2020, 47, e178-e184.	1.6	25
25	Towards a safe and efficient clinical implementation of machine learning in radiation oncology by exploring model interpretability, explainability and data-model dependency. Physics in Medicine and Biology, 2022, 67, 11TR01.	1.6	21
26	Artificial Intelligence in Radiation Oncology Imaging. International Journal of Radiation Oncology Biology Physics, 2018, 102, 1159-1161.	0.4	19
27	Comment on â€˜Deep convolutional neural network with transfer learning for rectum toxicity prediction in cervical cancer radiotherapy: a feasibility studyâ€™. Physics in Medicine and Biology, 2018, 63, 068001.	1.6	18
28	Salvage HDR Brachytherapy: Multiple Hypothesis Testing Versus Machine Learning Analysis. International Journal of Radiation Oncology Biology Physics, 2018, 101, 694-703.	0.4	17
29	Risks and Opportunities to Ensure Equity in the Application of Big Data Research in Public Health. Annual Review of Public Health, 2022, 43, 59-78.	7.6	16
30	Exploratory analysis using machine learning to predict for chest wall pain in patients with stage I nonâ€smallâ€cell lung cancer treated with stereotactic body radiation therapy. Journal of Applied Clinical Medical Physics, 2018, 19, 539-546.	0.8	13
31	Correcting <scp>TG</scp> 119 confidence limits. Medical Physics, 2018, 45, 1001-1008.	1.6	12
32	The relative accuracy of 4D dose accumulation for lung radiotherapy using rigid dose projection versus dose recalculation on every breathing phase. Medical Physics, 2017, 44, 1120-1127.	1.6	11
33	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
34	Prospective Clinical Validation of Virtual Patient-Specific Quality Assurance of Volumetric Modulated Arc Therapy Radiation Therapy Plans. International Journal of Radiation Oncology Biology Physics, 2022, 113, 1091-1102.	0.4	10
35	A situational awareness Bayesian network approach for accurate and credible personalized adaptive radiotherapy outcomes prediction in lung cancer patients. Physica Medica, 2021, 87, 11-23.	0.4	9
36	Salvage High-Dose-Rate Brachytherapy for Recurrent Prostate Cancer After Definitive Radiation. Practical Radiation Oncology, 2021, 11, 515-526.	1.1	7

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37	Re-evaluation of cellular radiosensitization by 5-fluorouracil: High-dose, pulsed administration is effective and preferable to conventional low-dose, chronic administration. International Journal of Radiation Biology, 2013, 89, 851-862.	1.0	6
38	Tumor control probability and the utility of 4D vs 3D dose calculations for stereotactic body radiotherapy for lung cancer. Medical Dosimetry, 2015, 40, 64-69.	0.4	6
39	Optimizing beam models for dosimetric accuracy over a wide range of treatments. Physica Medica, 2019, 58, 47-53.	0.4	6
40	Artificial intelligence for prediction of measurementâ€based patientâ€specific quality assurance is ready for prime time. Medical Physics, 2021, 48, 2701-2704.	1.6	6
41	Artificial Intelligence-Guided Prediction of Dental Doses Before Planning of Radiation Therapy for Oropharyngeal Cancer: Technical Development and Initial Feasibility of Implementation. Advances in Radiation Oncology, 2022, 7, 100886.	0.6	5
42	The Highâ€Affinity Maltose Switch <scp>MBP</scp>317â€347 has Low Affinity for Glucose: Implications for Targeting Tumors with Metabolically Directed Enzyme Prodrug Therapy. Chemical Biology and Drug Design, 2014, 83, 266-271.	1.5	4
43	In Reply to Gensheimer and Trister. International Journal of Radiation Oncology Biology Physics, 2018, 102, 1594-1596.	0.4	0
44	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