

Richard Castillo

List of Publications by Year in descending order

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Version: 2024-02-01

66
papers

2,879
citations

201674

27
h-index

168389

53
g-index

66
all docs

66
docs citations

66
times ranked

2439
citing authors

#	ARTICLE	IF	CITATIONS
1	A framework for evaluation of deformable image registration spatial accuracy using large landmark point sets. <i>Physics in Medicine and Biology</i> , 2009, 54, 1849-1870.	3.0	489
2	Implementation and evaluation of various demons deformable image registration algorithms on a GPU. <i>Physics in Medicine and Biology</i> , 2010, 55, 207-219.	3.0	219
3	Four-dimensional deformable image registration using trajectory modeling. <i>Physics in Medicine and Biology</i> , 2010, 55, 305-327.	3.0	207
4	Lung Texture in Serial Thoracic Computed Tomography Scans: Correlation of Radiomics-based Features With Radiation Therapy Dose and Radiation Pneumonitis Development. <i>International Journal of Radiation Oncology Biology Physics</i> , 2015, 91, 1048-1056.	0.8	192
5	Attenuation correction of PET images with respiration-averaged CT images in PET/CT. <i>Journal of Nuclear Medicine</i> , 2005, 46, 1481-7.	5.0	164
6	Ventilation from four-dimensional computed tomography: density versus Jacobian methods. <i>Physics in Medicine and Biology</i> , 2010, 55, 4661-4685.	3.0	155
7	Use of 4-Dimensional Computed Tomography-Based Ventilation Imaging to Correlate Lung Dose and Function With Clinical Outcomes. <i>International Journal of Radiation Oncology Biology Physics</i> , 2013, 86, 366-371.	0.8	102
8	A reference dataset for deformable image registration spatial accuracy evaluation using the COPDgene study archive. <i>Physics in Medicine and Biology</i> , 2013, 58, 2861-2877.	3.0	97
9	Hyperpolarized ³ He Magnetic Resonance Imaging. <i>Academic Radiology</i> , 2012, 19, 1546-1553.	2.5	78
10	A learning-based automatic segmentation and quantification method on left ventricle in gated myocardial perfusion SPECT imaging: A feasibility study. <i>Journal of Nuclear Cardiology</i> , 2020, 27, 976-987.	2.1	72
11	Use of weekly 4DCT-based ventilation maps to quantify changes in lung function for patients undergoing radiation therapy. <i>Medical Physics</i> , 2011, 39, 289-298.	3.0	64
12	Clinical Validation of 4-Dimensional Computed Tomography Ventilation With Pulmonary Function Test Data. <i>International Journal of Radiation Oncology Biology Physics</i> , 2015, 92, 423-429.	0.8	59
13	Quality Assurance Assessment of Diagnostic and Radiation Therapyâ€™Simulation CT Image Registration for Head and Neck Radiation Therapy: Anatomic Region of Interestâ€™based Comparison of Rigid and Deformable Algorithms. <i>Radiology</i> , 2015, 274, 752-763.	7.3	58
14	Spatial correspondence of 4D CT ventilation and SPECT pulmonary perfusion defects in patients with malignant airway stenosis. <i>Physics in Medicine and Biology</i> , 2012, 57, 1855-1871.	3.0	54
15	Evaluating the Toxicity Reduction With Computed Tomographic Ventilation Functional Avoidance Radiation Therapy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2017, 99, 325-333.	0.8	52
16	Comparison of 4-Dimensional Computed Tomography Ventilation With Nuclear Medicine Ventilation-Perfusion Imaging: A Clinical Validation Study. <i>International Journal of Radiation Oncology Biology Physics</i> , 2014, 89, 199-205.	0.8	50
17	[¹⁸ F]-FDG uptake doseâ€™response correlates with radiation pneumonitis in lung cancer patients. <i>Radiotherapy and Oncology</i> , 2012, 104, 52-57.	0.6	49
18	Pre-radiotherapy FDG PET predicts radiation pneumonitis in lung cancer. <i>Radiation Oncology</i> , 2014, 9, 74.	2.7	45

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19	Evaluating Which Dose-Function Metrics Are Most Critical for Functional-Guided Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2017, 99, 202-209.	0.8	45
20	Least median of squares filtering of locally optimal point matches for compressible flow image registration. Physics in Medicine and Biology, 2012, 57, 4827-4833.	3.0	41
21	Regional Lung Function Profiles of Stage I and III Lung Cancer Patients: An Evaluation for Functional Avoidance Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2016, 95, 1273-1280.	0.8	39
22	Modeling lung deformation: A combined deformable image registration method with spatially varying Young's modulus estimates. Medical Physics, 2013, 40, 081902.	3.0	38
23	Incorporation of pre-therapy ¹⁸ F-FDG uptake data with CT texture features into a radiomics model for radiation pneumonitis diagnosis. Medical Physics, 2017, 44, 3686-3694.	3.0	37
24	Novel method to calculate pulmonary compliance images in rodents from computed tomography acquired at constant pressures. Physics in Medicine and Biology, 2006, 51, 1101-1112.	3.0	33
25	Interim Analysis of a Two-Institution, Prospective Clinical Trial of 4DCT-Ventilation-based Functional Avoidance Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2018, 102, 1357-1365.	0.8	30
26	The numerical stability of transformation-based CT ventilation. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 569-580.	2.8	29
27	Pre- ¹⁸ F-Radiation Therapy Fluorine 18 Fluorodeoxyglucose PET Helps Identify Patients with Esophageal Cancer at High Risk for Radiation Pneumonitis. Radiology, 2015, 275, 822-831.	7.3	28
28	A complete 4DCT-ventilation functional avoidance virtual trial: Developing strategies for prospective clinical trials. Journal of Applied Clinical Medical Physics, 2017, 18, 144-152.	1.9	27
29	Evaluation of 4D CT acquisition methods designed to reduce artifacts. Journal of Applied Clinical Medical Physics, 2015, 16, 23-32.	1.9	25
30	Functional-guided radiotherapy using knowledge-based planning. Radiotherapy and Oncology, 2018, 129, 494-498.	0.6	24
31	Technical Note: Deriving ventilation imaging from 4DCT by deep convolutional neural network. Medical Physics, 2019, 46, 2323-2329.	3.0	23
32	Robust CT ventilation from the integral formulation of the Jacobian. Medical Physics, 2019, 46, 2115-2125.	3.0	22
33	Proton therapy radiation pneumonitis local dose-response in esophagus cancer patients. Radiotherapy and Oncology, 2013, 106, 124-129.	0.6	21
34	Reduction of pulmonary compliance found with high-resolution computed tomography in irradiated mice. International Journal of Radiation Oncology Biology Physics, 2007, 67, 879-887.	0.8	20
35	Results of a Multi-Institutional Phase 2 Clinical Trial for 4DCT-Ventilation Functional Avoidance Thoracic Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2022, 112, 986-995.	0.8	19
36	Computing global minimizers to a constrained B-spline image registration problem from optimal perturbations to block match data. Medical Physics, 2014, 41, 041904.	3.0	17

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37	Assessing the use of 4DCT-ventilation in preoperative surgical lung cancer evaluation. <i>Medical Physics</i> , 2017, 44, 200-208.	3.0	12
38	Evaluating Positron Emission Tomography-Based Functional Imaging Changes in the Heart After Chemo-Radiation for Patients With Lung Cancer. <i>International Journal of Radiation Oncology Biology Physics</i> , 2020, 106, 1063-1070.	0.8	12
39	Gemcitabine-induced radiation recall myositis in a patient with relapsed nasopharyngeal carcinoma. <i>Practical Radiation Oncology</i> , 2017, 7, e19-e22.	2.1	11
40	Title is missing!. <i>Journal of Medical and Biological Engineering</i> , 2014, 34, 178.	1.8	11
41	Morphometry-based measurements of the structural response to whole-brain radiation. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2015, 10, 393-401.	2.8	10
42	Quantifying pulmonary perfusion from noncontrast computed tomography. <i>Medical Physics</i> , 2021, 48, 1804-1814.	3.0	10
43	2021 AAPM Equity, Diversity, and Inclusion Climate Survey Executive Summary. <i>International Journal of Radiation Oncology Biology Physics</i> , 2023, 116, 295-304.	0.8	10
44	Robust HU-based CT ventilation from an integrated mass conservation formulation. <i>Medical Physics</i> , 2019, 46, 5036-5046.	3.0	9
45	Characterizing Spatial Lung Function for Esophageal Cancer Patients Undergoing Radiation Therapy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2019, 103, 738-746.	0.8	9
46	Severity of radiation pneumonitis, from clinical, dosimetric and biological features: a pilot study. <i>Radiation Oncology</i> , 2020, 15, 246.	2.7	9
47	Deformable image registration for temporal subtraction of chest radiographs. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2014, 9, 513-522.	2.8	8
48	Assessment of a quantitative metric for 4D CT artifact evaluation by observer consensus. <i>Journal of Applied Clinical Medical Physics</i> , 2014, 15, 190-201.	1.9	8
49	Predictors of pneumonitis-free survival following lung stereotactic body radiation therapy. <i>Translational Lung Cancer Research</i> , 2018, 8, 15-23.	2.8	5
50	Technical Note: On the spatial correlation between robust CT-ventilation methods and SPECT ventilation. <i>Medical Physics</i> , 2020, 47, 5731-5738.	3.0	5
51	Characterizing spatial differences between SPECT-ventilation and SPECT-perfusion in patients with lung cancer undergoing radiotherapy. <i>Radiotherapy and Oncology</i> , 2021, 160, 120-124.	0.6	5
52	Implementation of a Knowledge-Based Treatment Planning Model for Cardiac-Sparing Lung Radiation Therapy. <i>Advances in Radiation Oncology</i> , 2021, 6, 100745.	1.2	4
53	Using 4DCT-ventilation to characterize lung function changes for pediatric patients getting thoracic radiotherapy. <i>Journal of Applied Clinical Medical Physics</i> , 2018, 19, 407-412.	1.9	3
54	Cardiac metabolic changes on ¹⁸ F-positron emission tomography after thoracic radiotherapy predict for overall survival in esophageal cancer patients. <i>Journal of Applied Clinical Medical Physics</i> , 2023, 24, e13552.	1.9	3

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55	Evaluation of image registration spatial accuracy using a Bayesian hierarchical model. Biometrics, 2014, 70, 366-377.	1.4	2
56	GPU-accelerated block matching algorithm for deformable registration of lung CT images. , 2015, 2015, 292-295.		2
57	Automated identification and reduction of artifacts in cine four-dimensional computed tomography (4DCT) images using respiratory motion model. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1521-1532.	2.8	2
58	A Novel Lung Function Imaging Modality for Surgical Lung Cancer Evaluation. International Journal of Radiation Oncology Biology Physics, 2016, 96, S46.	0.8	1
59	The Expanding Role of Physiologic Imaging in Radiation Oncology. International Journal of Radiation Oncology Biology Physics, 2018, 102, 694-697.	0.8	1
60	Functional avoidance-based intensity modulated proton therapy with 4DCT derived ventilation imaging for lung cancer. Journal of Applied Clinical Medical Physics, 2021, 22, 276-285.	1.9	1
61	SU-C-18A-02: Image-Based Camera Tracking: Towards Registration of Endoscopic Video to CT. Medical Physics, 2014, 41, 101-101.	3.0	1
62	Changes in post-treatment cardiac PET avidity predict overall survival in lung cancer patients treated with chemoradiation: Secondary analysis of the ACRIN 6668/RTOG 0235 clinical trial. Radiotherapy and Oncology, 2022, 171, 22-24.	0.6	1
63	OC-0414: Assessing 4DCT-ventilation as a functional imaging modality for thoracic radiation therapy. Radiotherapy and Oncology, 2016, 119, S192-S193.	0.6	0
64	Evaluating Which Dose-Function Metrics Are Most Critical for Functional Guided Radiation Therapy with CT Ventilation Imaging. International Journal of Radiation Oncology Biology Physics, 2017, 99, E454-E455.	0.8	0
65	WE-C-BRA-06: In Vivo Detection of Proton End Range Effect in Human Lungs: Intra-Subject Dose Response Comparison. Medical Physics, 2012, 39, 3947-3948.	3.0	0
66	SU-EA-06251: Incorporation of Pre-therapy ^{18}F -FDG Uptake with CT Texture Features in a Predictive Model for Radiation Pneumonitis Development. Medical Physics, 2015, 42, 3324-3324.	3.0	0