Rene Werner

List of Publications by Year
in descending order

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104	2,565	318942	242451
papers	citations	23 h-index	47 g-index

116	116	116	3585
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Artificial intelligence in GI endoscopy: stumbling blocks, gold standards and the role of endoscopy societies. Gut, 2022, 71, 451-454.	6.1	10
2	P2X4 and P2X7 are essential players in basal T cell activity and Ca ²⁺ signaling milliseconds after T cell activation. Science Advances, 2022, 8, eabl9770.	4.7	20
3	Evaluation of magnetic resonance imaging-based radiomics characteristics for differentiation of benign and malignant peripheral nerve sheath tumors in neurofibromatosis type 1. Neuro-Oncology, 2022, 24, 1790-1798.	0.6	5
4	PAIP 2019: Liver cancer segmentation challenge. Medical Image Analysis, 2021, 67, 101854.	7.0	52
5	Comparison of intelligent 4D CT sequence scanning and conventional spiral 4D CT: a first comprehensive phantom study. Physics in Medicine and Biology, 2021, 66, 015004.	1.6	9
6	HN1L/JPT2: A signaling protein that connects NAADP generation to Ca ²⁺ microdomain formation. Science Signaling, 2021, 14, .	1.6	60
7	Spatio-temporal feature learning with reservoir computing for T-cell segmentation in live-cell $$hbox {Ca}^{2+}$$ fluorescence microscopy. Scientific Reports, 2021, 11, 8233.	1.6	5
8	Deep Learningâ€"Based Automated Thrombolysis in Cerebral Infarction Scoring: A Timely Proof-of-Principle Study. Stroke, 2021, 52, 3497-3504.	1.0	8
9	Time-Dependent Image Restoration of Low-SNR Live-Cell Ca2 Fluorescence Microscopy Data. International Journal of Molecular Sciences, 2021, 22, 11792.	1.8	6
10	First clinical evaluation of breathing controlled four-dimensional computed tomography imaging. Physics and Imaging in Radiation Oncology, 2021, 20, 56-61.	1.2	8
11	Dual NADPH oxidases DUOX1 and DUOX2 synthesize NAADP and are necessary for Ca ²⁺ signaling during T cell activation. Science Signaling, 2021, 14, eabe3800.	1.6	28
12	Single Image-Based Vignetting Correction for Improving the Consistency of Neural Activity Analysis in 2-Photon Functional Microscopy. Frontiers in Neuroinformatics, 2021, 15, 674439.	1.3	0
13	Combining Direct 3D Volume Rendering and Magnetic Particle Imaging to Advance Radiation-Free Real-Time 3D Guidance of Vascular Interventions. CardioVascular and Interventional Radiology, 2020, 43, 322-330.	0.9	8
14	Skin Lesion Classification Using CNNs With Patch-Based Attention and Diagnosis-Guided Loss Weighting. IEEE Transactions on Biomedical Engineering, 2020, 67, 495-503.	2.5	98
15	Selfâ€contained deep learningâ€based boosting of 4D coneâ€beam CT reconstruction. Medical Physics, 2020, 47, 5619-5631.	1.6	20
16	Skin lesion classification using ensembles of multi-resolution EfficientNets with meta data. MethodsX, 2020, 7, 100864.	0.7	180
17	Technological quality requirements for stereotactic radiotherapy. Strahlentherapie Und Onkologie, 2020, 196, 421-443.	1.0	76
18	Intelligent 4D CT sequence scanning (i4DCT): First scanner prototype implementation and phantom measurements of automated breathing signalâ€guided 4D CT. Medical Physics, 2020, 47, 2408-2412.	1.6	11

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19	4D CT image artifacts affect local control in SBRT of lung and liver metastases. Radiotherapy and Oncology, 2020, 148, 229-234.	0.3	27
20	Widening the Focus: Biomedical Image Segmentation Challenges and the Underestimated Role of Patch Sampling and Inference Strategies. Lecture Notes in Computer Science, 2020, , 289-298.	1.0	3
21	Time Matters: Handling Spatio-Temporal Perfusion Information for Automated TICI Scoring. Lecture Notes in Computer Science, 2020, , 86-96.	1.0	5
22	Digital Health meets Hamburg integrated medical degree program iMED: concept and introduction of the new interdisciplinary 2 track Digital Health. GMS Journal for Medical Education, 2020, 37, Doc61.	0.1	0
23	High-Resolution Calcium Imaging Method for Local Calcium Signaling. Methods in Molecular Biology, 2019, 1929, 27-39.	0.4	9
24	Intelligent 4D CT sequence scanning (i4DCT): Concept and performance evaluation. Medical Physics, 2019, 46, 3462-3474.	1.6	17
25	Discrimination of the hierarchical structure of cortical layers in 2-photon microscopy data by combined unsupervised and supervised machine learning. Scientific Reports, 2019, 9, 7424.	1.6	9
26	Radiomics of Brain MRI: Utility in Prediction of Metastatic Tumor Type. Radiology, 2019, 290, 479-487.	3.6	161
27	Patient-specific 4D Monte Carlo dose accumulation using correspondence-model-based motion prediction. , 2019, , .		0
28	Under-reported dosimetry errors due to interplay effects during VMAT dose delivery in extreme hypofractionated stereotactic radiotherapy. Strahlentherapie Und Onkologie, 2018, 194, 570-579.	1.0	19
29	Einfluss nicht-rigider Bildregistrierung auf 4D-Dosissimulation bei extrakranieller SBRT. Informatik Aktuell, 2018, , 188-193.	0.4	0
30	Influence of deformable image registration on 4D dose simulation for extracranial SBRT: A multi-registration framework study. Radiotherapy and Oncology, 2018, 127, 225-232.	0.3	16
31	A new cerebral vessel benchmark dataset (CAPUT) for validation of image-based aneurysm deformation estimation algorithms. Scientific Reports, 2018, 8, 15999.	1.6	1
32	ORAI1, STIM1/2, and RYR1 shape subsecond Ca ²⁺ microdomains upon T cell activation. Science Signaling, 2018, 11, .	1.6	59
33	GDL-FIRE$$^ext {4D}$$: Deep Learning-Based Fast 4D CT Image Registration. Lecture Notes in Computer Science, 2018, , 765-773.	1.0	25
34	Analysis of the influence of imaging-related uncertainties on cerebral aneurysm deformation quantification using a no-deformation physical flow phantom. Scientific Reports, 2018, 8, 11004.	1.6	5
35	Influence of 4D CT motion artifacts on correspondence model-based 4D dose accumulation. , 2018, , .		7
36	Technical considerations for automated low-pitch spiral 4D CT scanning protocol selection. , 2018, , .		4

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37	Self-reference-based and during-registration detection of motion artifacts in spatio-temporal image data. , 2018, , .		0
38	Correspondence model-based 4D VMAT dose simulation for analysis of local metastasis recurrence after extracranial SBRT. Physics in Medicine and Biology, 2017, 62, 9001-9017.	1.6	8
39	PO-0882: Proxy-free slow-pitch helical 4DCT reconstruction. Radiotherapy and Oncology, 2017, 123, S483-S484.	0.3	3
40	Subpopulation-based correspondence modelling for improved respiratory motion estimation in the presence of inter-fraction motion variations. Physics in Medicine and Biology, 2017, 62, 5823-5839.	1.6	8
41	Reduction of breathing irregularity-related motion artifacts in low-pitch spiral 4D CT by optimized projection binning. Radiation Oncology, 2017, 12, 100.	1.2	23
42	4D dose simulation in volumetric arc therapy: Accuracy and affecting parameters. PLoS ONE, 2017, 12, e0172810.	1.1	8
43	Systematic Analysis of Jurkat T-Cell Deformation in Fluorescence Microscopy Data. Informatik Aktuell, 2017, , 275-280.	0.4	3
44	Expanding the clinical spectrum of the â€˜<scp>HDAC8</scp>â€phenotypeâ€™ â€“ implications for molecular diagnostics, counseling and risk prediction. Clinical Genetics, 2016, 89, 564-573.	1.0	38
45	Phantom-based ground-truth generation for cerebral vessel segmentation and pulsatile deformation analysis. , 2016, , .		2
46	Regional Lung Ventilation Analysis Using Temporally Resolved Magnetic Resonance Imaging. Journal of Computer Assisted Tomography, 2016, 40, 899-906.	0.5	7
47	Geometry planning and image registration in magnetic particle imaging using bimodal fiducial markers. Medical Physics, 2016, 43, 2884-2893.	1.6	15
48	EP-1763: Experimental analysis of interplay effects in flattening filter free VMAT treatment techniques. Radiotherapy and Oncology, 2016, 119, S826-S827.	0.3	1
49	Beyond cost function masking: RPCA-based non-linear registration in the context of VLSM. , 2016, , .		3
50	Required transition from research to clinical application: Report on the 4D treatment planning workshops 2014 and 2015. Physica Medica, 2016, 32, 874-882.	0.4	34
51	Optimized projection binning for improved helical amplitude- and phase-based 4DCT reconstruction in the presence of breathing irregularity. Proceedings of SPIE, 2016, , .	0.8	3
52	Broadening of cohesinopathies: exome sequencing identifies mutations in <scp>ANKRD11</scp> in two patients with Cornelia de Langeâ€overlapping phenotype. Clinical Genetics, 2016, 89, 74-81.	1.0	69
53	Real time tracking in liver SBRT: comparison of CyberKnife and Vero by planning structure-basedÎ³-evaluation and dose-area-histograms. Physics in Medicine and Biology, 2016, 61, 1677-1691.	1.6	28
54	Reference geometry-based detection of (4D-)CT motion artifacts: a feasibility study. , 2015, , .		2

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55	Respiratory surface motion measurement by Microsoft Kinect. Current Directions in Biomedical Engineering, 2015, 1, 270-273.	0.2	6
56	Design, performance characteristics and application examples of a new 4D motion platform. Zeitschrift Fur Medizinische Physik, 2015, 25, 156-167.	0.6	7
57	Comparison of 3D and 4D Monte Carlo optimization in robotic tracking stereotactic body radiotherapy of lung cancer. Strahlentherapie Und Onkologie, 2015, 191, 161-171.	1.0	17
58	Frontrunners of T cell activation: Initial, localized Ca ²⁺ signals mediated by NAADP and the type 1 ryanodine receptor. Science Signaling, 2015, 8, ra102.	1.6	68
59	Sensitivity of tumor motion simulation accuracy to lung biomechanical modeling approaches and parameters. Physics in Medicine and Biology, 2015, 60, 8833-8849.	1.6	22
60	Variational Registration. Informatik Aktuell, 2015, , 209-214.	0.4	9
61	A Modular Framework for Post-Processing and Analysis of Fluorescence Microscopy Image Sequences of Subcellular Calcium Dynamics. Informatik Aktuell, 2015, , 401-406.	0.4	5
62	TH-CD-303-03: Sensitivity of Tumor Motion Simulation Accuracy to Lung Biomechanical Modeling Approaches and Parameters. Medical Physics, 2015, 42, 3729-3729.	1.6	0
63	Lung Registration Using Automatically Detected Landmarks. Methods of Information in Medicine, 2014, 53, 250-256.	0.7	7
64	Simulation of Range Imaging-based Estimation of Respiratory Lung Motion. Methods of Information in Medicine, 2014, 53, 257-263.	0.7	3
65	Estimation of lung motion fields in 4D CT data by variational non-linear intensity-based registration: A comparison and evaluation study. Physics in Medicine and Biology, 2014, 59, 4247-4260.	1.6	48
66	Statistical analysis of surrogate signals to incorporate respiratory motion variability into radiotherapy treatment planning. Proceedings of SPIE, 2014, , .	0.8	0
67	Simulation of spatiotemporal CT data sets using a 4D MRI-based lung motion model. International Journal of Computer Assisted Radiology and Surgery, 2014, 9, 401-409.	1.7	17
68	Multivariate regression approaches for surrogate-based diffeomorphic estimation of respiratory motion in radiation therapy. Physics in Medicine and Biology, 2014, 59, 1147-1164.	1.6	26
69	EP-1743: Compilation of a database for illustration and automated detection of 4DCT motion artifacts. Radiotherapy and Oncology, 2014, 111, S266.	0.3	3
70	TV-L1-Based 3D Medical Image Registration with the Census Cost Function. Lecture Notes in Computer Science, 2014, , 149-161.	1.0	9
71	High Accuracy Optical Flow for 3D Medical Image Registration Using the Census Cost Function. Lecture Notes in Computer Science, 2014, , 23-35.	1.0	16
72	A Flexible Variational Registration Framework. The Insight Journal, 2014, , .	0.2	3

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73	Assessing accuracy of non-linear registration in 4D image data using automatically detected landmark correspondences. Proceedings of SPIE, 2013, , .	0.8	4
74	Biophysical Modeling of Respiratory Organ Motion. Biological and Medical Physics Series, 2013, , 61-84.	0.3	2
75	Validation and Comparison of Approaches to Respiratory Motion Estimation. Biological and Medical Physics Series, 2013, , 159-183.	0.3	1
76	Surrogate-based diffeomorphic motion estimation for radiation therapy: comparison of multivariate regression approaches. , 2013, , .		5
77	4D-MRT-basierte Simulation der Lungenbewegung in statischen CT-Daten. Informatik Aktuell, 2013, , 134-139.	0.4	0
78	Decision Forests with Spatio-Temporal Features for Graph-Based Tumor Segmentation in 4D Lung CT. Lecture Notes in Computer Science, 2013, , 179-186.	1.0	0
79	Pulmonary lobe segmentation with level sets. , 2012, , .		6
80	Model-based risk assessment for motion effects in 3D radiotherapy of lung tumors. , 2012, , .		2
81	Testosterone Synthesis in Patients with 17Î²-Hydroxysteroid Dehydrogenase 3 Deficiency. Sexual Development, 2012, 6, 161-168.	1.1	23
82	Towards accurate dose accumulation for Step-&-Shoot IMRT: Impact of weighting schemes and temporal image resolution on the estimation of dosimetric motion effects. Zeitschrift Fur Medizinische Physik, 2012, 22, 109-122.	0.6	21
83	Estimation of slipping organ motion by registration with direction-dependent regularization. Medical Image Analysis, 2012, 16, 150-159.	7.0	81
84	Fast Explicit Diffusion for Registration with Direction-Dependent Regularization. Lecture Notes in Computer Science, 2012, , 220-228.	1.0	12
85	Lung Registration with Improved Fissure Alignment by Integration of Pulmonary Lobe Segmentation. Lecture Notes in Computer Science, 2012, 15, 74-81.	1.0	5
86	Statistical Modeling of 4D Respiratory Lung Motion Using Diffeomorphic Image Registration. IEEE Transactions on Medical Imaging, 2011, 30, 251-265.	5.4	121
87	Evaluation of Registration Methods on Thoracic CT: The EMPIRE10 Challenge. IEEE Transactions on Medical Imaging, 2011, 30, 1901-1920.	5.4	363
88	Landmark-driven parameter optimization for non-linear image registration. , 2011, , .		6
89	Technical Note: Development of a tidal volume surrogate that replaces spirometry for physiological breathing monitoring in 4D CT. Medical Physics, 2010, 37, 615-619.	1.6	23
90	Estimation of motion fields by non-linear registration for local lung motion analysis in 4D CT image data. International Journal of Computer Assisted Radiology and Surgery, 2010, 5, 595-605.	1.7	10

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91	A statistical shape and motion model for the prediction of respiratory lung motion. , 2010, , .		7
92	Direction-dependent regularization for improved estimation of liver and lung motion in 4D image data. , 2010, , .		3
93	Validation and comparison of a biophysical modeling approach and non-linear registration for estimation of lung motion fields in thoracic 4D CT data. Proceedings of SPIE, 2009, , .	0.8	13
94	Patientâ€specific finite element modeling of respiratory lung motion using 4D CT image data. Medical Physics, 2009, 36, 1500-1511.	1.6	124
95	Slipping Objects in Image Registration: Improved Motion Field Estimation with Direction-Dependent Regularization. Lecture Notes in Computer Science, 2009, 12, 755-762.	1.0	20
96	Integrierte Segmentierung und Trajektorienberechnung mittels diffeomorpher Registrierung in rÃumlich-zeitlichen CT-Bildfolgen. Informatik Aktuell, 2009, , 182-186.	0.4	0
97	Dose Accumulation based on Optimized Motion Field Estimation using Non-Linear Registration in Thoracic 4D CT Image Data. IFMBE Proceedings, 2009, , 950-953.	0.2	1
98	4D Motion Modeling: Estimation of Respiratory Motion for Radiation Therapy. IFMBE Proceedings, 2009, , 2166-2169.	0.2	0
99	Modeling respiratory lung motion: a biophysical approach using finite element methods. Proceedings of SPIE, 2008, , .	0.8	18
100	Finite-Element-Modellierung von respiratorischen Lungenbewegungen als elastizitÃtstheoretisches Kontaktproblem zur BewegungsschÃtzung in 4D-CT-Daten. Informatik Aktuell, 2008, , 112-116.	0.4	0
101	An optical flow based method for improved reconstruction of 4D CT data sets acquired during free breathing. Medical Physics, 2007, 34, 711-721.	1.6	127
102	Motion Artifact Reducing Reconstruction of 4D CT Image Data for the Analysis of Respiratory Dynamics. Methods of Information in Medicine, 2007, 46, 254-260.	0.7	32
103	4D medical image computing and visualization of lung tumor mobility in spatio-temporal CT image data. International Journal of Medical Informatics, 2007, 76, S433-S439.	1.6	28
104	Generation of 4D CT image data and analysis of lung tumour mobility during the breathing cycle. Studies in Health Technology and Informatics, 2006, 124, 977-82.	0.2	4