

Cristian Badea

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

114
papers

2,985
citations

30
h-index

51
g-index

154
ext. papers

3,498
ext. citations

3.7
avg, IF

5.26
L-index

#	Paper	IF	Citations
114	In vivo small-animal imaging using micro-CT and digital subtraction angiography. <i>Physics in Medicine and Biology</i> , 2008 , 53, R319-50	3.8	206
113	A Plasmonic Gold Nanostar Theranostic Probe for In Vivo Tumor Imaging and Photothermal Therapy. <i>Theranostics</i> , 2015 , 5, 946-60	12.1	204
112	A liposomal nanoscale contrast agent for preclinical CT in mice. <i>American Journal of Roentgenology</i> , 2006 , 186, 300-7	5.4	190
111	Micro-CT with respiratory and cardiac gating. <i>Medical Physics</i> , 2004 , 31, 3324-9	4.4	139
110	Sparseness prior based iterative image reconstruction for retrospectively gated cardiac micro-CT. <i>Medical Physics</i> , 2007 , 34, 4476-83	4.4	122
109	Micro-CT of rodents: state-of-the-art and future perspectives. <i>Physica Medica</i> , 2014 , 30, 619-34	2.7	121
108	4-D Micro-CT of the Mouse Heart. <i>Molecular Imaging</i> , 2005 , 4, 153535002005041	3.7	110
107	In vivo characterization of tumor vasculature using iodine and gold nanoparticles and dual energy micro-CT. <i>Physics in Medicine and Biology</i> , 2013 , 58, 1683-704	3.8	108
106	In vivo small animal micro-CT using nanoparticle contrast agents. <i>Frontiers in Pharmacology</i> , 2015 , 6, 2565.6		83
105	Evaluation of tumor microenvironment in an animal model using a nanoparticle contrast agent in computed tomography imaging. <i>Academic Radiology</i> , 2011 , 18, 20-30	4.3	72
104	Dual-energy micro-CT functional imaging of primary lung cancer in mice using gold and iodine nanoparticle contrast agents: a validation study. <i>PLoS ONE</i> , 2014 , 9, e88129	3.7	66
103	Dual-Energy CT Imaging of Tumor Liposome Delivery After Gold Nanoparticle-Augmented Radiation Therapy. <i>Theranostics</i> , 2018 , 8, 1782-1797	12.1	61
102	4-D micro-CT of the mouse heart. <i>Molecular Imaging</i> , 2005 , 4, 110-6	3.7	54
101	Computed tomography imaging of primary lung cancer in mice using a liposomal-iodinated contrast agent. <i>PLoS ONE</i> , 2012 , 7, e34496	3.7	53
100	High-resolution imaging of murine myocardial infarction with delayed-enhancement cine micro-CT. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007 , 292, H3172-8	5.2	53
99	Dual-energy computed tomography imaging of atherosclerotic plaques in a mouse model using a liposomal-iodine nanoparticle contrast agent. <i>Circulation: Cardiovascular Imaging</i> , 2013 , 6, 285-94	3.9	49
98	Dual-energy micro-computed tomography imaging of radiation-induced vascular changes in primary mouse sarcomas. <i>International Journal of Radiation Oncology Biology Physics</i> , 2013 , 85, 1353-9	4	46

97	Effects of breathing and cardiac motion on spatial resolution in the microscopic imaging of rodents. <i>Magnetic Resonance in Medicine</i> , 2005 , 53, 858-65	4.4	44
96	Tumor imaging in small animals with a combined micro-CT/micro-DSA system using iodinated conventional and blood pool contrast agents. <i>Contrast Media and Molecular Imaging</i> , 2006 , 1, 153-64	3.2	43
95	A dual micro-CT system for small animal imaging. <i>Proceedings of SPIE</i> , 2008 , 6913, 691342	1.7	42
94	Geometric calibration for a dual tube/detector micro-CT system. <i>Medical Physics</i> , 2008 , 35, 1820-9	4.4	40
93	A comparative analysis of EGFR-targeting antibodies for gold nanoparticle CT imaging of lung cancer. <i>PLoS ONE</i> , 2018 , 13, e0206950	3.7	40
92	Spectral diffusion: an algorithm for robust material decomposition of spectral CT data. <i>Physics in Medicine and Biology</i> , 2014 , 59, 6445-66	3.8	35
91	Assessing cardiac injury in mice with dual energy-microCT, 4D-microCT, and microSPECT imaging after partial heart irradiation. <i>International Journal of Radiation Oncology Biology Physics</i> , 2014 , 88, 686-93	4.4	35
90	Dual-energy micro-CT of the rodent lung. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2012 , 302, L1088-97	5.8	35
89	Imaging methods for morphological and functional phenotyping of the rodent heart. <i>Toxicologic Pathology</i> , 2006 , 34, 111-7	2.1	34
88	A registration based approach for 4D cardiac micro-CT using combined prospective and retrospective gating. <i>Medical Physics</i> , 2008 , 35, 1170-9	4.4	32
87	Anatomical and functional imaging of myocardial infarction in mice using micro-CT and eXIA 160 contrast agent. <i>Contrast Media and Molecular Imaging</i> , 2014 , 9, 161-8	3.2	31
86	A neural network-based method for spectral distortion correction in photon counting x-ray CT. <i>Physics in Medicine and Biology</i> , 2016 , 61, 6132-53	3.8	31
85	4D micro-CT for cardiac and perfusion applications with view under sampling. <i>Physics in Medicine and Biology</i> , 2011 , 56, 3351-69	3.8	30
84	Three-dimensional reconstruction in free-space whole-body fluorescence tomography of mice using optically reconstructed surface and atlas anatomy. <i>Journal of Biomedical Optics</i> , 2009 , 14, 064010	3.5	28
83	Lung perfusion imaging in small animals using 4D micro-CT at heartbeat temporal resolution. <i>Medical Physics</i> , 2010 , 37, 54-62	4.4	28
82	Assessing the radiation response of lung cancer with different gene mutations using genetically engineered mice. <i>Frontiers in Oncology</i> , 2013 , 3, 72	5.3	26
81	Left ventricle volume measurements in cardiac micro-CT: the impact of radiation dose and contrast agent. <i>Computerized Medical Imaging and Graphics</i> , 2008 , 32, 239-50	7.6	26
80	A novel approach for distortion correction for X-ray image intensifiers. <i>Computerized Medical Imaging and Graphics</i> , 2003 , 27, 79-85	7.6	26

79	Functional imaging of tumor vasculature using iodine and gadolinium-based nanoparticle contrast agents: a comparison of spectral micro-CT using energy integrating and photon counting detectors. <i>Physics in Medicine and Biology</i> , 2019 , 64, 065007	3.8	25
78	A high-precision contrast injector for small animal x-ray digital subtraction angiography. <i>IEEE Transactions on Biomedical Engineering</i> , 2008 , 55, 1082-91	5	25
77	Experiments with the nonlinear and chaotic behaviour of the multiplicative algebraic reconstruction technique (MART) algorithm for computed tomography. <i>Physics in Medicine and Biology</i> , 2004 , 49, 1455-74	3.8	24
76	A micro-computed tomography-based method for the measurement of pulmonary compliance in healthy and bleomycin-exposed mice. <i>Experimental Lung Research</i> , 2007 , 33, 169-83	2.3	22
75	Cardiac MicroComputed Tomography for Morphological and Functional Phenotyping of Muscle LIM Protein Null Mice. <i>Molecular Imaging</i> , 2007 , 6, 7290.2007.00022	3.7	22
74	Dual-energy micro-CT imaging for differentiation of iodine- and gold-based nanoparticles 2011 ,		21
73	Quantitative blood flow measurements in the small animal cardiopulmonary system using digital subtraction angiography. <i>Medical Physics</i> , 2009 , 36, 5347-58	4.4	19
72	Three-dimensional imaging of xenograft tumors using optical computed and emission tomography. <i>Medical Physics</i> , 2006 , 33, 3193-202	4.4	19
71	Optimized radiographic spectra for small animal digital subtraction angiography. <i>Medical Physics</i> , 2006 , 33, 4249-57	4.4	19
70	Tomographic digital subtraction angiography for lung perfusion estimation in rodents. <i>Medical Physics</i> , 2007 , 34, 1546-55	4.4	19
69	Vascular Endothelial Growth Factor Receptor 3 Regulates Endothelial Function Through EArrestin 1. <i>Circulation</i> , 2019 , 139, 1629-1642	16.7	19
68	Hybrid spectral CT reconstruction. <i>PLoS ONE</i> , 2017 , 12, e0180324	3.7	18
67	4D micro-CT using fast prospective gating. <i>Physics in Medicine and Biology</i> , 2012 , 57, 257-71	3.8	18
66	A wavelet-based method for removal of out-of-plane structures in digital tomosynthesis. <i>Computerized Medical Imaging and Graphics</i> , 1998 , 22, 309-15	7.6	18
65	A micro-CT analysis of murine lung recruitment in bleomycin-induced lung injury. <i>Journal of Applied Physiology</i> , 2008 , 105, 669-77	3.7	17
64	Temporal and spectral imaging with micro-CT. <i>Medical Physics</i> , 2012 , 39, 4943-58	4.4	16
63	Micro-CT imaging of breast tumors in rodents using a liposomal, nanoparticle contrast agent. <i>International Journal of Nanomedicine</i> , 2009 , 4, 277-82	7.3	16
62	Three-dimensional localisation based on projectional and tomographic image correlation: an application for digital tomosynthesis. <i>Medical Engineering and Physics</i> , 1999 , 21, 101-9	2.4	15

61	Micro-CT imaging assessment of dobutamine-induced cardiac stress in rats. <i>Journal of Pharmacological and Toxicological Methods</i> , 2011 , 63, 24-9	1.7	14
60	Low-dose 4D cardiac imaging in small animals using dual source micro-CT. <i>Physics in Medicine and Biology</i> , 2018 , 63, 025009	3.8	14
59	Comparison of 4D-microSPECT and microCT for murine cardiac function. <i>Molecular Imaging and Biology</i> , 2014 , 16, 235-45	3.8	13
58	Spectrotemporal CT data acquisition and reconstruction at low dose. <i>Medical Physics</i> , 2015 , 42, 6317-36	4.4	13
57	Registration-based segmentation of murine 4D cardiac micro-CT data using symmetric normalization. <i>Physics in Medicine and Biology</i> , 2012 , 57, 6125-45	3.8	13
56	Cardiac micro-computed tomography for morphological and functional phenotyping of muscle LIM protein null mice. <i>Molecular Imaging</i> , 2007 , 6, 261-8	3.7	13
55	Bridging the translational gap: Implementation of multimodal small animal imaging strategies for tumor burden assessment in a co-clinical trial. <i>PLoS ONE</i> , 2019 , 14, e0207555	3.7	11
54	Denoising of 4D Cardiac Micro-CT Data Using Median-Centric Bilateral Filtration. <i>Proceedings of SPIE</i> , 2012 , 8314,	1.7	11
53	Effects of sampling strategy on image quality in noncontact panoramic fluorescence diffuse optical tomography for small animal imaging. <i>Optics Express</i> , 2009 , 17, 5125-38	3.3	11
52	Estimation of the heart respiratory motion with applications for cone beam computed tomography imaging: a simulation study. <i>IEEE Transactions on Information Technology in Biomedicine</i> , 2003 , 7, 404-11		10
51	Advances in micro-CT imaging of small animals. <i>Physica Medica</i> , 2021 , 88, 175-192	2.7	10
50	Development of a noncontact 3-D fluorescence tomography system for small animal in vivo imaging. <i>Proceedings of SPIE</i> , 2009 , 7191, nihpa106691	1.7	9
49	MRI-Based Deep Learning Segmentation and Radiomics of Sarcoma in Mice. <i>Tomography</i> , 2020 , 6, 23-33	3.1	9
48	Phase-selective image reconstruction of the lungs in small animals using Micro-CT. <i>Proceedings of SPIE</i> , 2010 , 7622, 76223G.1-76223G.9	1.7	8
47	Co-Clinical Imaging Resource Program (CIRP): Bridging the Translational Divide to Advance Precision Medicine. <i>Tomography</i> , 2020 , 6, 273-287	3.1	8
46	High-resolution reconstruction of fluorescent inclusions in mouse thorax using anatomically guided sampling and parallel Monte Carlo computing. <i>Biomedical Optics Express</i> , 2011 , 2, 2449-60	3.5	7
45	Investigations on X-ray luminescence CT for small animal imaging. <i>Proceedings of SPIE</i> , 2012 , 8313, 83130T	1.7	7
44	Optimization of dual energy contrast enhanced breast tomosynthesis for improved mammographic lesion detection and diagnosis 2008 ,		7

43	Photon-counting cine-cardiac CT in the mouse. <i>PLoS ONE</i> , 2019 , 14, e0218417	3.7	6
42	Deep learning based spectral extrapolation for dual-source, dual-energy x-ray computed tomography. <i>Medical Physics</i> , 2020 , 47, 4150-4163	4.4	6
41	Sensitization of Vascular Endothelial Cells to Ionizing Radiation Promotes the Development of Delayed Intestinal Injury in Mice. <i>Radiation Research</i> , 2019 , 192, 258-266	3.1	5
40	Localization of Metal Electrodes in the Intact Rat Brain Using Registration of 3D Microcomputed Tomography Images to a Magnetic Resonance Histology Atlas. <i>ENeuro</i> , 2015 , 2,	3.9	5
39	GPU-based iterative reconstruction with total variation minimization for micro-CT 2010 ,		5
38	Lung imaging in rodents using dual energy micro-CT. <i>Proceedings of SPIE</i> , 2012 , 8317,	1.7	5
37	A comparison of sampling strategies for dual energy micro-CT 2012 ,		5
36	Spectral imaging of iodine and gadolinium nanoparticles using dual-energy CT 2018 ,		5
35	Characterization of cardiovascular injury in mice following partial-heart irradiation with clinically relevant dose and fractionation. <i>Radiotherapy and Oncology</i> , 2021 , 157, 155-162	5.3	5
34	The impact of respiratory gating on improving volume measurement of murine lung tumors in micro-CT imaging. <i>PLoS ONE</i> , 2020 , 15, e0225019	3.7	4
33	Simultaneous imaging of multiple contrast agents using full-spectrum micro-CT 2015 ,		3
32	Constructing a 4D murine cardiac micro-CT atlas for automated segmentation and phenotyping applications 2013 ,		3
31	In vivo imaging of rat coronary arteries using bi-plane digital subtraction angiography. <i>Journal of Pharmacological and Toxicological Methods</i> , 2011 , 64, 151-7	1.7	3
30	Dissecting the Mechanism of Tumor Response to Radiation Therapy with Primary Lung Cancers in Mice. <i>International Journal of Radiation Oncology Biology Physics</i> , 2009 , 75, S537	4	3
29	Utility of a prototype liposomal contrast agent for x-ray imaging of breast cancer: a proof of concept using micro-CT in small animals 2008 ,		3
28	Overcoming detector limitations of x-ray photon counting for preclinical microcomputed tomography. <i>Journal of Medical Imaging</i> , 2019 , 6, 011004	2.6	3
27	Data-efficient methods for multi-channel x-ray CT reconstruction 2018 ,		3
26	Convolutional regularization methods for 4D, x-ray CT reconstruction 2019 ,		3

25	Phenylephrine-modulated cardiopulmonary blood flow measured with use of X-ray digital subtraction angiography. <i>Journal of Pharmacological and Toxicological Methods</i> , 2011 , 64, 180-6	1.7	2
24	4D micro-CT-based perfusion imaging in small animals 2009 ,		2
23	Measurement and modeling of 4D live mouse heart volumes from CT time series 2007 ,		2
22	Multi-energy CT decomposition using convolutional neural networks 2018 ,		2
21	Small Animal X-ray Computed Tomography 2017 , 749-773		2
20	Robust material decomposition for spectral CT 2014 ,		1
19	Spectral deblurring: an algorithm for high-resolution, hybrid spectral CT 2015 ,		1
18	A LabVIEW Platform for Preclinical Imaging Using Digital Subtraction Angiography and Micro-CT. <i>Journal of Medical Engineering</i> , 2013 , 2013, 581617		1
17	Free-space fluorescence tomography with adaptive sampling based on anatomical information from microCT. <i>Proceedings of SPIE</i> , 2010 , 7757,	1.7	1
16	Multi-modality PET-CT imaging of breast cancer in an animal model using nanoparticle x-ray contrast agent and ¹⁸ F-FDG 2011 ,		1
15	A spectral calibration technique for x-ray CT 2012 ,		1
14	Spectral data completion for dual-source x-ray CT 2019 ,		1
13	Data analysis: evaluation of nanoscale contrast agent enhanced CT scan to differentiate between benign and malignant lung cancer in mouse model 2012 , 2012, 27-35	0.7	1
12	A dual energy CT study on vascular effects of gold nanoparticles in radiation therapy 2016 ,		1
11	Microcephaly with altered cortical layering in GIT1 deficiency revealed by quantitative neuroimaging. <i>Magnetic Resonance Imaging</i> , 2021 , 76, 26-38	3.3	1
10	Dual source hybrid spectral micro-CT using an energy-integrating and a photon-counting detector. <i>Physics in Medicine and Biology</i> , 2020 , 65, 205012	3.8	0
9	Ex Vivo MR Histology and Cytometric Feature Mapping Connect Three-dimensional in Vivo MR Images to Two-dimensional Histopathologic Images of Murine Sarcomas. <i>Radiology Imaging Cancer</i> , 2021 , 3, e200103	1.4	0
8	Detection of Lung Nodules in Micro-CT Imaging Using Deep Learning. <i>Tomography</i> , 2021 , 7, 358-372	3.1	0

- 7 Photon Counting CT and Radiomic Analysis Enables Differentiation of Tumors Based on Lymphocyte Burden.. *Tomography*, **2022**, 8, 740-753 3.1 0
- 6 Digital Subtracted Angiography of Small Animals. *Imaging in Medical Diagnosis and Therapy*, **2016**, 67-76
- 5 Logarithmic amplifier for computed tomography tasks using fluoroscopic projections. *Journal of Medical Engineering and Technology*, **2002**, 26, 247-52 1.8
- 4 TH-C-351-02: Registration Based Automatic Segmentation and Wall Motion Analysis for 4D Cardiac Micro-CT in Mice. *Medical Physics*, **2008**, 35, 2974-2974 4.4
- 3 WE-G-134-08: Extracting Fractional Regional Ventilation in Mice. *Medical Physics*, **2013**, 40, 513-513 4.4
- 2 Evaluating renal lesions using deep-learning based extension of dual-energy FoV in dual-source CT-A retrospective pilot study. *European Journal of Radiology*, **2021**, 139, 109734 4.7
- 1 Principles of Micro X-ray Computed Tomography **2021**, 47-64