Thomas Flohr

List of Publications by Year in descending order

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117 papers	10,362 citations	36303 51 h-index	37204 96 g-index
123 all docs	123 docs citations	123 times ranked	5846 citing authors

#	Article	IF	Citations
1	Material differentiation by dual energy CT: initial experience. European Radiology, 2007, 17, 1510-1517.	4.5	1,384
2	Multislice helical CT of the heart with retrospective ECG gating: reduction of radiation exposure by ECG-controlled tube current modulation. European Radiology, 2002, 12, 1081-1086.	4.5	601
3	Cardiac Imaging by Means of Electrocardiographically Gated Multisection Spiral CT: Initial Experience. Radiology, 2000, 217, 564-571.	7.3	506
4	Subsecond multi-slice computed tomography: basics and applications. European Journal of Radiology, 1999, 31, 110-124.	2.6	430
5	Contrast-enhanced coronary artery visualization by dual-source computed tomographyâ€"Initial experience. European Journal of Radiology, 2006, 57, 331-335.	2.6	368
6	A machine-learning approach for computation of fractional flow reserve from coronary computed tomography. Journal of Applied Physiology, 2016, 121, 42-52.	2.5	288
7	High-pitch spiral acquisition: A new scan mode for coronary CT angiography. Journal of Cardiovascular Computed Tomography, 2009, 3, 117-121.	1.3	233
8	Lung Perfusion with Dual-energy Multidetector-row CT (MDCT). Academic Radiology, 2008, 15, 1494-1504.	2.5	232
9	Heart Rate Adaptive Optimization of Spatial and Temporal Resolution for Electrocardiogram-Gated Multislice Spiral CT of the Heart. Journal of Computer Assisted Tomography, 2001, 25, 907-923.	0.9	230
10	Photon-counting CT review. Physica Medica, 2020, 79, 126-136.	0.7	225
11	Raw data-based iterative reconstruction in body CTA: evaluation of radiation dose saving potential. European Radiology, 2011, 21, 2521-2526.	4.5	223
12	Chest computed tomography using iterative reconstruction vs filtered back projection (Part 2): image quality of low-dose CT examinations in 80 patients. European Radiology, 2011, 21, 636-643.	4.5	219
13	64-slice multidetector coronary CT angiography: in vitro evaluation of 68 different stents. European Radiology, 2006, 16, 818-826.	4.5	206
14	Ultralow-Dose Chest Computed Tomography for Pulmonary Nodule Detection. Investigative Radiology, 2014, 49, 465-473.	6.2	206
15	Prospectively ECG-triggered high-pitch spiral acquisition for coronary CT angiography using dual source CT: technique and initial experience. European Radiology, 2009, 19, 2576-2583.	4.5	192
16	Ultra-high resolution flat-panel volume CT: fundamental principles, design architecture, and system characterization. European Radiology, 2006, 16, 1191-1205.	4.5	186
17	Flat-Panel Volume CT: Fundamental Principles, Technology, and Applications. Radiographics, 2008, 28, 2009-2022.	3.3	185
18	Image Quality, Motion Artifacts, and Reconstruction Timing of 64-Slice Coronary Computed Tomography Angiography With 0.33-Second Rotation Speed. Investigative Radiology, 2006, 41, 436-442.	6.2	178

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19	Comparison of Angular and Combined Automatic Tube Current Modulation Techniques with Constant Tube Current CT of the Abdomen and Pelvis. American Journal of Roentgenology, 2006, 186, 673-679.	2.2	178
20	Chest computed tomography using iterative reconstruction vs filtered back projection (Part 1): evaluation of image noise reduction in 32 patients. European Radiology, 2011, 21, 627-635.	4.5	167
21	Automated Attenuation-Based Tube Potential Selection for Thoracoabdominal Computed Tomography Angiography. Investigative Radiology, 2011, 46, 767-773.	6.2	159
22	Accuracy of iodine quantification using dual energy CT in latest generation dual source and dual layer CT. European Radiology, 2017, 27, 3904-3912.	4.5	150
23	Spectral Optimization of Chest CT Angiography with Reduced Iodine Load: Experience in 80 Patients Evaluated with Dual-Source, Dual-Energy CT. Radiology, 2013, 267, 256-266.	7.3	143
24	Weighted FBPâ€"a simple approximate 3D FBP algorithm for multislice spiral CT with good dose usage for arbitrary pitch. Physics in Medicine and Biology, 2004, 49, 2209-2218.	3.0	142
25	Low-dose CT of the lung: potential value of iterative reconstructions. European Radiology, 2012, 22, 2597-2606.	4.5	133
26	Wavelet Based Noise Reduction in CT-Images Using Correlation Analysis. IEEE Transactions on Medical Imaging, 2008, 27, 1685-1703.	8.9	132
27	Advances in cardiac CT imaging: 64-slice scanner. International Journal of Cardiovascular Imaging, 2004, 20, 535-540.	1.5	121
28	Principles and applications of multienergy CT: Report of AAPM Task Group 291. Medical Physics, 2020, 47, e881-e912.	3.0	117
29	Image Fusion in Dual Energy Computed Tomography. Investigative Radiology, 2009, 44, 1-6.	6.2	116
30	Quantitative Whole Heart Stress Perfusion CT Imaging as Noninvasive Assessment of Hemodynamics in Coronary Artery Stenosis. Investigative Radiology, 2010, 45, 298-305.	6.2	106
31	Multidetector-row computed tomography and magnetic resonance imaging of atherosclerotic lesions in human ex vivo coronary arteries. Atherosclerosis, 2004, 174, 243-252.	0.8	102
32	Reduced-Dose Low-Voltage Chest CT Angiography with Sinogram-affirmed Iterative Reconstruction versus Standard-Dose Filtered Back Projection. Radiology, 2013, 267, 609-618.	7.3	95
33	64- Versus 16-Slice CT Angiography for Coronary Artery Stent Assessment. Investigative Radiology, 2006, 41, 22-27.	6.2	94
34	Photon-Counting CT. Investigative Radiology, 2018, 53, 143-149.	6.2	91
35	Accuracy of Density Measurements Within Plaques Located in Artificial Coronary Arteries by X-Ray Multislice CT: Results of a Phantom Study. Journal of Computer Assisted Tomography, 2001, 25, 900-906.	0.9	87
36	Assessment of coronary artery stents using 16-slice MDCT angiography: evaluation of a dedicated reconstruction kernel and a noise reduction filter. European Radiology, 2005, 15, 721-726.	4.5	87

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37	Electronic Noise in CT Detectors: Impact on Image Noise and Artifacts. American Journal of Roentgenology, 2013, 201, W626-W632.	2.2	83
38	Do Segmented Reconstruction Algorithms for Cardiac Multi-Slice Computed Tomography Improve Image Quality?. Herz, 2003, 28, 20-31.	1.1	78
39	The assessment of intracranial bleeding with virtual unenhanced imaging by means of dual-energy CT angiography. European Radiology, 2009, 19, 2518-2522.	4.5	73
40	Dual-Phase Dual-Energy CT in Patients Treated with Erlotinib for Advanced Non-Small Cell Lung Cancer: Possible Benefits of Iodine Quantification in Response Assessment. European Radiology, 2016, 26, 2828-2836.	4.5	66
41	Individually Adapted Examination Protocols for Reduction of Radiation Exposure in Chest CT. Investigative Radiology, 2001, 36, 604-611.	6.2	63
42	Dual-Source Computed Tomography. Investigative Radiology, 2007, 42, 196-203.	6.2	62
43	Cardiac spiral dual-source CT with high pitch: a feasibility study. European Radiology, 2009, 19, 2357-2362.	4.5	60
44	Improving bestâ€phase image quality in cardiac CT by motion correction with MAM optimization. Medical Physics, 2013, 40, 031901.	3.0	60
45	Thoracic applications of dual-source CT technology. European Journal of Radiology, 2008, 68, 375-384.	2.6	59
46	Lowering Kilovoltage to Reduce Radiation Dose in Contrast-Enhanced Abdominal CT: Initial Assessment of a Prototype Automated Kilovoltage Selection Tool. American Journal of Roentgenology, 2012, 199, 1070-1077.	2.2	59
47	Automatic Selection of Tube Potential for Radiation Dose Reduction in Vascular and Contrast-Enhanced Abdominopelvic CT. American Journal of Roentgenology, 2013, 201, W297-W306.	2.2	58
48	Coronary arteries: assessment of image quality and optimal reconstruction window in retrospective ECG-gated multislice CT at 375-ms gantry rotation time. European Radiology, 2005, 15, 296-304.	4.5	57
49	Ultra-low-dose coronary artery calcium screening using multislice CT with retrospective ECG gating. European Radiology, 2003, 13, 1923-1930.	4.5	56
50	Performance Evaluation of a Multi-Slice CT System with 16-Slice Detector and Increased Gantry Rotation Speed for Isotropic Submillimeter Imaging of the Heart. Herz, 2003, 28, 7-19.	1.1	56
51	Multislice CT angiography. European Radiology, 2003, 13, 1946-1961.	4.5	55
52	Pulmonary imaging using dual-energy CT, a role of the assessment of iodine and air distribution. European Journal of Radiology, 2011, 77, 287-293.	2.6	53
53	Modified Dual-Energy Algorithm for Calcified Plaque Removal. Investigative Radiology, 2017, 52, 680-685.	6.2	50
54	Segmented multiple plane reconstruction: a novel approximate reconstruction scheme for multi-slice spiral CT. Physics in Medicine and Biology, 2002, 47, 2571-2581.	3.0	49

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55	Dynamic Iterative Beam Hardening Correction (DIBHC) in Myocardial Perfusion Imaging Using Contrast-Enhanced Computed Tomography. Investigative Radiology, 2010, 45, 314-323.	6.2	49
56	Photon-Counting Detector CT-Based Vascular Calcium Removal Algorithm. Investigative Radiology, 2022, 57, 399-405.	6.2	47
57	Multidetector-row cardiac CT: diagnostic value of calcium scoring and CT coronary angiography in patients with symptomatic, but atypical, chest pain. European Radiology, 2004, 14, 169-177.	4.5	46
58	Performance evaluation of xâ€ray differential phase contrast computed tomography (PCT) with respect to medical imaging. Medical Physics, 2012, 39, 4761-4774.	3.0	46
59	Improved coronary artery stent visualization and in-stent stenosis detection using 16-slice computed-tomography and dedicated image reconstruction technique. Investigative Radiology, 2003, 38, 790-5.	6.2	45
60	Accuracy and Reliability of Quantitative Measurements in Coronary Arteries by Multi-slice Computed Tomography: Experimental and Initial Clinical Results. Clinical Radiology, 2001, 56, 466-474.	1.1	42
61	Spatial domain filtering for fast modification of the tradeoff between image sharpness and pixel noise in computed tomography. IEEE Transactions on Medical Imaging, 2003, 22, 846-853.	8.9	40
62	Clinical evaluation of automatic tube voltage selection in chest CT angiography. European Radiology, 2013, 23, 2643-2651.	4.5	39
63	Computed tomography recent history and future perspectives. Journal of Medical Imaging, 2021, 8, 052109.	1.5	39
64	Next generation coronary CT angiography: in vitro evaluation of 27 coronary stents. European Radiology, 2014, 24, 2953-2961.	4.5	38
65	Dual-source chest CT angiography with high temporal resolution and high pitch modes: evaluation of image quality in 140 patients. European Radiology, 2010, 20, 1188-1196.	4.5	37
66	Artificial Intelligence in Diagnostic Imaging. Journal of Thoracic Imaging, 2020, 35, S11-S16.	1.5	35
67	Flat panel computed tomography of human ex vivo heart and bone specimens: initial experience. European Radiology, 2005, 15, 329-333.	4.5	34
68	Automated attenuation-based selection of tube voltage and tube current for coronary CT angiography: Reduction of radiation exposure versus a BMI-based strategy with an expert investigator. Journal of Cardiovascular Computed Tomography, 2013, 7, 303-310.	1.3	34
69	Principles and applications of dual source CT. Physica Medica, 2020, 79, 36-46.	0.7	34
70	Spatial resolution improvement and dose reduction potential for inner ear CT imaging using a zâ€axis deconvolution technique. Medical Physics, 2013, 40, 061904.	3.0	30
71	‹title›New efficient Fourier-reconstruction method for approximate image reconstruction in spiral cone-beam CT at small cone angles‹/title›. , 1997, , .		28
72	Basic principles and clinical potential of photon-counting detector CT. Chinese Journal of Academic Radiology, 2020, 3, 19-34.	0.6	26

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73	High-resolution ex vivo imaging of coronary artery stents using 64-slice computed tomographyâ€"initial experience. European Radiology, 2006, 16, 1564-1569.	4.5	23
74	Coronary artery stent imaging with CT using an integrated electronics detector and iterative reconstructions: First inÂvitro experience. Journal of Cardiovascular Computed Tomography, 2013, 7, 215-222.	1.3	21
75	Flat-panel detector computed tomography for the assessment of coronary artery stents: phantom study in comparison with 16-slice spiral computed tomography. Investigative Radiology, 2005, 40, 8-13.	6.2	19
76	CT Systems. Current Radiology Reports, 2013, 1, 52-63.	1.4	18
77	Spatial domain image filtering in computed tomography: feasibility study in pulmonary embolism. European Radiology, 2003, 13, 717-723.	4.5	16
78	Evaluation of automated attenuation-based tube current adaptation for coronary calcium scoring in MDCT in a cohort of 262 patients. European Radiology, 2007, 17, 1850-1857.	4.5	16
79	Screening for coronary artery disease in respiratory patients: comparison of single- and dual-source CT in patients with a heart rate above 70Âbpm. European Radiology, 2008, 18, 2108-2119.	4.5	13
80	Spinal dual-energy computed tomography: improved visualisation of spinal tumorous growth with a noise-optimised advanced monoenergetic post-processing algorithm. Neuroradiology, 2016, 58, 1093-1102.	2.2	12
81	Multislice CT: Current Technology and Future Developments. Medical Radiology, 2009, , 3-23.	0.1	12
82	Design and evaluation of a prototype volume CT scanner. , 2005, 5745, 600.		11
83	Multi-slice CT Technology. , 2007, , 41-69.		9
84	Individualized Scan Protocols in Abdominal Computed Tomography. Investigative Radiology, 2022, 57, 353-358.	6.2	8
85	Pediatric chest computed tomography at 100 kVp with tin filtration: comparison of image quality with 70-kVp imaging at comparable radiation dose. Pediatric Radiology, 2020, 50, 188-198.	2.0	7
86	Principles of Multi-slice Cardiac CT Imaging. , 2007, , 71-126.		7
87	Multidetector-row CT of the heart. Seminars in Roentgenology, 2003, 38, 135-145.	0.6	6
88	Dynamic imaging of a model of intracranial saccular aneurysms using ultra-high-resolution flat-panel volumetric computed tomography. Journal of Neurosurgery, 2009, 111, 947-957.	1.6	6
89	Image Quality of 3rd Generation Spiral Cranial Dual-Source CT in Combination with an Advanced Model Iterative Reconstruction Technique: A Prospective Intra-Individual Comparison Study to Standard Sequential Cranial CT Using Identical Radiation Dose. PLoS ONE, 2015, 10, e0136054.	2.5	6
90	In Vitro Comparison of Second- and Third-generation Dual-source CT for Coronary Stent Visualization at Different Tube Potentials. Academic Radiology, 2016, 23, 961-968.	2.5	6

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91	Design, Technique, and Future Perspective of Multislice CT Scanners. , 2004, , 3-16.		6
92	COMPUTED TOMOGRAPHYâ€"PATIENT DOSE AND DOSE REDUCTION TECHNOLOGIES. Health Physics, 2011, 100, 325-328.	0.5	4
93	New Approaches to Reduce Radiation While Maintaining Image Quality in Multi-Detector-Computed Tomography. Current Radiology Reports, 2015, 3, 1.	1.4	4
94	Novel reconstruction scheme for cardiac volume imaging with MSCT providing cone correction. , 2002, , .		3
95	Multi-slice CT: Current Technology and Future Developments. Medical Radiology, 2018, , 3-34.	0.1	3
96	Multidetector-Row CT Basics, Technological Evolution, and Current Technology. , 2017, , 3-33.		3
97	Dual Source CT Technology. , 2008, , 19-33.		3
98	Multi-Detector Row CTâ€"Recent Developments, Radiation Dose and Dose Reduction Technologies. Medical Radiology, 2012, , 3-19.	0.1	2
99	Cardiac Gating. Medical Radiology, 2009, , 23-36.	0.1	2
100	Science and practice of imaging physics through 50 years of SPIE Medical Imaging conferences. Journal of Medical Imaging, 2022, 9, 012205.	1.5	2
101	Image Reconstruction for ECG-Triggered and ECG-Gated Multislice CT. , 2005, , 45-54.		1
102	Evaluation Of a New Reconstruction Technique for Dual-Energy (DECT) Lung Perfusion: Preliminary Experience In 58 Patients. Academic Radiology, 2021, , .	2.5	1
103	Technical Aspects of Dual Energy CT with Dual Source CT Systems. , 2015, , 11-32.		1
104	Multi-Slice Cumputed Tomography Technical Principles, Clinical Application and Future Perspective. Medical Radiology, 2004, , 87-115.	0.1	1
105	Image Visualization and Post-processing Techniques. , 2007, , 151-177.		1
106	Dual-Energy: The Siemens Approach. Medical Radiology, 2022, , 15-27.	0.1	1
107	Multidetector-Row CT: Technical Principles. , 2005, , 11-23.		0
108	Technical Principles and Applications of Multislice CT. , 2006, , 3-23.		0

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109	Principle and applications of dual source CT. Proceedings of SPIE, 2008, , .	0.8	0
110	Influence of cardiac motion on stent lumen visualization in third generation dual-source CT employing a pulsatile heart model. British Journal of Radiology, 2017, 90, 20160616.	2.2	0
111	Technical Principles of CT. , 2002, , 443-452.		0
112	Visualization of Large Image Data Volumes Using PACS and Advanced Postprocessing Methods. , 2004, , 35-42.		0
113	Fundamentals of multi-slice CT scanning and its application to the periphery. , 2007, , 1-17.		0
114	From Sixteen Slices to Nowadays â€" Cardiothoracic Imaging with CT. Medical Radiology, 2009, , 3-22.	0.1	0
115	Technische Grundlagen der Herz-CT. , 2009, , 3-13.		0
116	Dual Source CT Technology. , 2010, , 11-27.		0
117	Physical Background of Multi Detector Row Computed Tomography. Medical Radiology, 2011, , 1-14.	0.1	0