

Marc Kachelrieß

List of Publications by Year in descending order

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87
times ranked

3395
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Empirical scatter correction: CBCT scatter artifact reduction without prior information. Medical Physics, 2022, 49, 4566-4584. | 1.6 | 7 |
| 2 | Patient-specific radiation risk-based tube current modulation for diagnostic CT. Medical Physics, 2022, 49, 4391-4403. | 1.6 | 6 |
| 3 | Photon-counting normalized metal artifact reduction (NMAR) in diagnostic CT. Medical Physics, 2021, 48, 3572-3582. | 1.6 | 17 |
| 4 | Toward molecular imaging using spectral photon-counting computed tomography?. Current Opinion in Chemical Biology, 2021, 63, 163-170. | 2.8 | 6 |
| 5 | Motion compensation for aortic valves using partial angle CT reconstructions motion compensation of cardiac valve CT. Medical Physics, 2021, , . | 1.6 | 0 |
| 6 | Effects of Detector Sampling on Noise Reduction in Clinical Photon-Counting Whole-Body Computed Tomography. Investigative Radiology, 2020, 55, 111-119. | 3.5 | 60 |
| 7 | Recent and Upcoming Technological Developments in Computed Tomography. Investigative Radiology, 2020, 55, 8-19. | 3.5 | 173 |
| 8 | Potential of contrast agents based on high-Z elements for contrast-enhanced photon-counting computed tomography. Medical Physics, 2020, 47, 6179-6190. | 1.6 | 18 |
| 9 | Stack transition artifact removal (STAR) for cardiac CT. Medical Physics, 2019, 46, 4777-4791. | 1.6 | 2 |
| 10 | The value of iterative metal artifact reduction algorithms during antenna positioning for CT-guided microwave ablation. International Journal of Hyperthermia, 2019, 36, 1222-1231. | 1.1 | 4 |
| 11 | Technical Note: Intrinsic raw data-based CT misalignment correction without redundant data. Medical Physics, 2019, 46, 173-179. | 1.6 | 1 |
| 12 | Image-based noise reduction for material decomposition in dual or multi energy computed tomography. , 2019, , . | | 2 |
| 13 | Two methods for reducing moving metal artifacts in cone-beam CT. Medical Physics, 2018, 45, 3671-3680. | 1.6 | 8 |
| 14 | Effect of detruncation on the accuracy of Monte Carlo-based scatter estimation in truncated CBCT. Medical Physics, 2018, 45, 3574-3590. | 1.6 | 5 |
| 15 | Computertomographie. , 2018, , 153-203. | | 1 |
| 16 | Simulation-based artifact correction (SBAC) for metrological computed tomography. Measurement Science and Technology, 2017, 28, 065011. | 1.4 | 11 |
| 17 | Model-based sphere localization (MBSL) in x-ray projections. Physics in Medicine and Biology, 2017, 62, 6486-6496. | 1.6 | 1 |
| 18 | Motion compensation in the region of the coronary arteries based on partial angle reconstructions from short-scan CT data. Medical Physics, 2017, 44, 5795-5813. | 1.6 | 24 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | An efficient computational approach to model statistical correlations in photon counting x-ray detectors. Medical Physics, 2016, 43, 3945-3960. | 1.6 | 21 |
| 20 | Cardiorespiratory motion-compensated micro-CT image reconstruction using an artifact model-based motion estimation. Medical Physics, 2015, 42, 1948-1958. | 1.6 | 29 |
| 21 | Robust primary modulation-based scatter estimation for cone-beam CT. Medical Physics, 2015, 42, 469-478. | 1.6 | 31 |
| 22 | Multi-dimensional tensor-based adaptive filter (TBAF) for low dose x-ray CT. , 2015, , . | | 1 |
| 23 | Segmentation-free empirical beam hardening correction for CT. Medical Physics, 2015, 42, 794-803. | 1.6 | 26 |
| 24 | Dual energy CT: How well can pseudo-monochromatic imaging reduce metal artifacts?. Medical Physics, 2015, 42, 1023-1036. | 1.6 | 109 |
| 25 | Performance of today's dual energy CT and future multi energy CT in virtual non-contrast imaging and in iodine quantification: A simulation study. Medical Physics, 2015, 42, 4349-4366. | 1.6 | 181 |
| 26 | The application of metal artifact reduction (MAR) in CT scans for radiation oncology by monoenergetic extrapolation with a DECT scanner. Zeitschrift Fur Medizinische Physik, 2015, 25, 314-325. | 0.6 | 20 |
| 27 | Deformable 3D-2D registration for CT and its application to low dose tomographic fluoroscopy. Physics in Medicine and Biology, 2014, 59, 7865-7887. | 1.6 | 11 |
| 28 | Prior-based artifact correction (PBAC) in computed tomography. Medical Physics, 2014, 41, 021906. | 1.6 | 31 |
| 29 | CT calibration and dose minimization in image-based material decomposition with energy-selective detectors. , 2014, , . | | 5 |
| 30 | Iterative Reconstruction Techniques: What do they Mean for Cardiac CT?. Current Cardiovascular Imaging Reports, 2013, 6, 268-281. | 0.4 | 19 |
| 31 | Real-time X-ray-based 4D image guidance of minimally invasive interventions. European Radiology, 2013, 23, 1669-1677. | 2.3 | 11 |
| 32 | Artifact-resistant motion estimation with a patient-specific artifact model for motion-compensated cone-beam CT. Medical Physics, 2013, 40, 101913. | 1.6 | 51 |
| 33 | Monitoring internal organ motion with continuous wave radar in CT. Medical Physics, 2013, 40, 091915. | 1.6 | 16 |
| 34 | Interesting detector shapes for third generation CT scanners. Medical Physics, 2013, 40, 031101. | 1.6 | 6 |
| 35 | Monitoring respiratory motion using continuous wave Doppler radar in a near field multi antenna approach. , 2012, , . | | 2 |
| 36 | CT data completion based on prior scans. , 2012, , . | | 0 |

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| 37 | Iterative 4D cardiac micro-CT image reconstruction using an adaptive spatio-temporal sparsity prior. <i>Physics in Medicine and Biology</i> , 2012, 57, 1517-1525. | 1.6 | 79 |
| 38 | Frequency split metal artifact reduction (FSMAR) in computed tomography. <i>Medical Physics</i> , 2012, 39, 1904-1916. | 1.6 | 204 |
| 39 | A robust geometry estimation method for spiral, sequential and circular cone-beam micro-CT. <i>Medical Physics</i> , 2012, 39, 5384-5392. | 1.6 | 22 |
| 40 | Hybrid scatter correction for CT imaging. <i>Physics in Medicine and Biology</i> , 2012, 57, 6849-6867. | 1.6 | 46 |
| 41 | Empirical Cupping Correction for CT Scanners with Primary Modulation (ECCP). <i>Medical Physics</i> , 2012, 39, 825-831. | 1.6 | 21 |
| 42 | Adaptive normalized metal artifact reduction (ANMAR) in computed tomography. , 2011, , . | | 17 |
| 43 | Exact dual energy material decomposition from inconsistent rays (MDIR). <i>Medical Physics</i> , 2011, 38, 691-700. | 1.6 | 79 |
| 44 | Empirical binary tomography calibration (EBTC) for the precorrection of beam hardening and scatter for flat panel CT. <i>Medical Physics</i> , 2011, 38, 2233-2240. | 1.6 | 14 |
| 45 | New approaches to region of interest computed tomography. <i>Medical Physics</i> , 2011, 38, 2868-2878. | 1.6 | 26 |
| 46 | Low-dose cardio-respiratory phase-correlated cone-beam micro-CT of small animals. <i>Medical Physics</i> , 2011, 38, 1416-1424. | 1.6 | 36 |
| 47 | Dose minimization for material-selective CT with energy-selective detectors. , 2011, , . | | 4 |
| 48 | Improved total variation-based CT image reconstruction applied to clinical data. <i>Physics in Medicine and Biology</i> , 2011, 56, 1545-1561. | 1.6 | 263 |
| 49 | Algorithm for hyperfast cone-beam spiral backprojection. <i>Computer Methods and Programs in Biomedicine</i> , 2010, 98, 253-260. | 2.6 | 6 |
| 50 | Simple ROI cone-beam computed tomography. , 2010, , . | | 3 |
| 51 | Empirical beam hardening correction (EBHC) for CT. <i>Medical Physics</i> , 2010, 37, 5179-5187. | 1.6 | 122 |
| 52 | TRI-PICCS in single source and dual source CT. , 2010, , . | | 4 |
| 53 | An investigation of 4D cone-beam CT algorithms for slowly rotating scanners. <i>Medical Physics</i> , 2010, 37, 5044-5053. | 1.6 | 74 |
| 54 | Water calibration for CT scanners with tube voltage modulation. <i>Physics in Medicine and Biology</i> , 2010, 55, 4107-4117. | 1.6 | 12 |

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| 55 | Empirical scatter correction (esc): A new CT scatter correction method and its application to metal artifact reduction. , 2010, , . | | 15 |
| 56 | Normalized metal artifact reduction (NMAR) in computed tomography. Medical Physics, 2010, 37, 5482-5493. | 1.6 | 442 |
| 57 | Dual energy CT material decomposition from inconsistent rays (MDIR). , 2009, , . | | 6 |
| 58 | Dynamic iterative beam hardening correction (DIBHC) for an optimized assessment of cardiac perfusion in ECG-correlated CT. , 2009, , . | | 2 |
| 59 | CT image reconstruction on Intel Larrabee using half precision floating-point values. , 2009, , . | | 1 |
| 60 | A new method for cupping and scatter pre-correction for flat detector CT. , 2009, , . | | 2 |
| 61 | CT image reconstruction using Larrabee. , 2009, , . | | 1 |
| 62 | High performance cone-beam spiral backprojection with voxel-specific weighting. Physics in Medicine and Biology, 2009, 54, 3691-3708. | 1.6 | 26 |
| 63 | Autoadaptive phase-correlated (AAPC) reconstruction for 4D CBCT. Medical Physics, 2009, 36, 5695-5706. | 1.6 | 50 |
| 64 | Cardiac phase-correlated image reconstruction and advanced image processing in pulmonary CT imaging. European Radiology, 2009, 19, 1035-1042. | 2.3 | 3 |
| 65 | Image-based dual energy CT using optimized pre-correction functions: A practical new approach of material decomposition in image domain. Medical Physics, 2009, 36, 3818-3829. | 1.6 | 156 |
| 66 | Cone-beam CT image reconstruction with extended range. Medical Physics, 2009, 36, 3363-3370. | 1.6 | 22 |
| 67 | Validation of a raw data-based synchronization signal (kymogram) for phase-correlated cardiac image reconstruction. European Radiology, 2008, 18, 253-262. | 2.3 | 9 |
| 68 | Micro-CT. Handbook of Experimental Pharmacology, 2008, , 23-52. | 0.9 | 7 |
| 69 | Interactively variable isotropic resolution in computed tomography. Physics in Medicine and Biology, 2008, 53, 2693-2713. | 1.6 | 7 |
| 70 | Dual energy exposure control (DEEC) for computed tomography: Algorithm and simulation study. Medical Physics, 2008, 35, 5054-5060. | 1.6 | 7 |
| 71 | A new weighting function to achieve high temporal resolution in circular cone-beam CT with shifted detectors. Medical Physics, 2008, 35, 5898-5909. | 1.6 | 19 |
| 72 | Hyperfast parallel-beam and cone-beam backprojection using the cell general purpose hardware. Medical Physics, 2007, 34, 1474-1486. | 1.6 | 79 |

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|----|--|-----|-----------|
| 73 | Empirical cupping correction: A first-order raw data precorrection for cone-beam computed tomography. <i>Medical Physics</i> , 2006, 33, 1269-1274. | 1.6 | 117 |
| 74 | Empirical Dual Energy Calibration (EDEC) for Cone-Beam Computed Tomography. , 2006, , . | | 4 |
| 75 | Multithreaded cardiac CT. <i>Medical Physics</i> , 2006, 33, 2435-2447. | 1.6 | 34 |
| 76 | Rawdata-Based Detection of the Optimal Reconstruction Phase in ECG-Gated Cardiac Image Reconstruction. <i>Lecture Notes in Computer Science</i> , 2006, 9, 348-355. | 1.0 | 6 |
| 77 | Geometric misalignment and calibration in cone-beam tomography. <i>Medical Physics</i> , 2004, 31, 3242-3266. | 1.6 | 120 |
| 78 | Extended parallel backprojection for standard three-dimensional and phase-correlated four-dimensional axial and spiral cone-beam CT with arbitrary pitch, arbitrary cone-angle, and 100% dose usage. <i>Medical Physics</i> , 2004, 31, 1623-1641. | 1.6 | 74 |
| 79 | Improvement of image quality of multislice spiral CT scans of the head and neck region using a raw data-based multidimensional adaptive filtering (MAF) technique. <i>European Radiology</i> , 2004, 14, 1873-81. | 2.3 | 22 |
| 80 | Kymogram detection and kymogram-correlated image reconstruction from subsecond spiral computed tomography scans of the heart. <i>Medical Physics</i> , 2002, 29, 1489-1503. | 1.6 | 84 |
| 81 | Generalized multi-dimensional adaptive filtering for conventional and spiral single-slice, multi-slice, and cone-beam CT. <i>Medical Physics</i> , 2001, 28, 475-490. | 1.6 | 276 |
| 82 | Advanced single-slice rebinning for tilted spiral cone-beam CT. <i>Medical Physics</i> , 2001, 28, 1033-1041. | 1.6 | 31 |
| 83 | Advanced single-slice rebinning in cone-beam spiral CT. <i>Medical Physics</i> , 2000, 27, 754-772. | 1.6 | 143 |
| 84 | ECG-correlated image reconstruction from subsecond multi-slice spiral CT scans of the heart. <i>Medical Physics</i> , 2000, 27, 1881-1902. | 1.6 | 204 |
| 85 | Noninvasive Coronary Angiography by Retrospectively ECG-Gated Multislice Spiral CT. <i>Circulation</i> , 2000, 102, 2823-2828. | 1.6 | 405 |
| 86 | Technical advances in multi-slice spiral CT. <i>European Journal of Radiology</i> , 2000, 36, 69-73. | 1.2 | 116 |
| 87 | High-Performance Image Reconstruction (HPIR) in Three Dimensions. <i>Advances in Medical Technologies and Clinical Practice Book Series</i> , 0, , 121-162. | 0.3 | 0 |