

Franz Pfeiffer

List of Publications by Year in descending order

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256
papers

13,401
citations

53794

45
h-index

26613

107
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267
all docs

267
docs citations

267
times ranked

7065
citing authors

#	ARTICLE	IF	CITATIONS
1	Phase retrieval and differential phase-contrast imaging with low-brilliance X-ray sources. <i>Nature Physics</i> , 2006, 2, 258-261.	16.7	1,654
2	High-Resolution Scanning X-ray Diffraction Microscopy. <i>Science</i> , 2008, 321, 379-382.	12.6	1,152
3	X-ray phase imaging with a grating interferometer. <i>Optics Express</i> , 2005, 13, 6296.	3.4	1,135
4	Ptychographic X-ray computed tomography at the nanoscale. <i>Nature</i> , 2010, 467, 436-439.	27.8	766
5	Probe retrieval in ptychographic coherent diffractive imaging. <i>Ultramicroscopy</i> , 2009, 109, 338-343.	1.9	556
6	X-ray ptychography. <i>Nature Photonics</i> , 2018, 12, 9-17.	31.4	424
7	Influence of the overlap parameter on the convergence of the ptychographical iterative engine. <i>Ultramicroscopy</i> , 2008, 108, 481-487.	1.9	243
8	Quantitative biological imaging by ptychographic x-ray diffraction microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 529-534.	7.1	242
9	Emphysema diagnosis using X-ray dark-field imaging at a laser-driven compact synchrotron light source. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 17880-17885.	7.1	167
10	Toward Clinical X-ray Phase-Contrast CT. <i>Investigative Radiology</i> , 2010, 45, 445-452.	6.2	152
11	High-resolution tomographic imaging of a human cerebellum: comparison of absorption and grating-based phase contrast. <i>Journal of the Royal Society Interface</i> , 2010, 7, 1665-1676.	3.4	149
12	Six-dimensional real and reciprocal space small-angle X-ray scattering tomography. <i>Nature</i> , 2015, 527, 353-356.	27.8	149
13	Experimental results from a preclinical X-ray phase-contrast CT scanner. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 15691-15696.	7.1	136
14	The Munich Compact Light Source: initial performance measures. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 1137-1142.	2.4	131
15	Hard X-ray phase-contrast imaging with the Compact Light Source based on inverse Compton X-rays. <i>Journal of Synchrotron Radiation</i> , 2009, 16, 43-47.	2.4	128
16	Ptychographic characterization of the wavefield in the focus of reflective hard X-ray optics. <i>Ultramicroscopy</i> , 2010, 110, 325-329.	1.9	117
17	Dual-energy CT: a phantom comparison of different platforms for abdominal imaging. <i>European Radiology</i> , 2018, 28, 2745-2755.	4.5	114
18	High-resolution differential phase contrast imaging using a magnifying projection geometry with a microfocus x-ray source. <i>Applied Physics Letters</i> , 2007, 90, 224101.	3.3	112

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19	Spectral Photon-counting CT: Initial Experience with Dual-Contrast Agent K-Edge Colonography. Radiology, 2017, 283, 723-728.	7.3	111
20	Pulmonary Emphysema Diagnosis with a Preclinical Small-Animal X-ray Dark-Field Scatter-Contrast Scanner. Radiology, 2013, 269, 427-433.	7.3	109
21	X-ray phase-contrast tomography with a compact laser-driven synchrotron source. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5567-5572.	7.1	103
22	Advanced phase-contrast imaging using a grating interferometer. Journal of Synchrotron Radiation, 2009, 16, 562-572.	2.4	102
23	Coherent x-ray scattering. Journal of Physics Condensed Matter, 2004, 16, 5003-5030.	1.8	101
24	Quantitative phase-contrast tomography of a liquid phantom using a conventional x-ray tube source. Optics Express, 2009, 17, 10010.	3.4	95
25	Three-dimensional virtual histology enabled through cytoplasm-specific X-ray stain for microscopic and nanoscopic computed tomography. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2293-2298.	7.1	85
26	Directional x-ray dark-field imaging of strongly ordered systems. Physical Review B, 2010, 82, .	3.2	83
27	In-vivo X-ray Dark-Field Chest Radiography of a Pig. Scientific Reports, 2017, 7, 4807.	3.3	83
28	Dual-layer spectral computed tomography: Virtual non-contrast in comparison to true non-contrast images. European Journal of Radiology, 2018, 104, 108-114.	2.6	83
29	Experimental feasibility of spectral photon-counting computed tomography with two contrast agents for the detection of endoleaks following endovascular aortic repair. European Radiology, 2018, 28, 3318-3325.	4.5	79
30	Grating-based X-ray phase contrast for biomedical imaging applications. Zeitschrift Fur Medizinische Physik, 2013, 23, 176-185.	1.5	78
31	In Vivo Dark-Field Radiography for Early Diagnosis and Staging of Pulmonary Emphysema. Investigative Radiology, 2015, 50, 430-435.	6.2	77
32	X-ray dark-field imaging of the human lung—A feasibility study on a deceased body. PLoS ONE, 2018, 13, e0204565.	2.5	76
33	Improved In vivo Assessment of Pulmonary Fibrosis in Mice using X-Ray Dark-Field Radiography. Scientific Reports, 2015, 5, 17492.	3.3	72
34	X-ray phase radiography and tomography of soft tissue using grating interferometry. European Journal of Radiology, 2008, 68, S13-S17.	2.6	70
35	X-ray dark-field chest imaging for detection and quantification of emphysema in patients with chronic obstructive pulmonary disease: a diagnostic accuracy study. The Lancet Digital Health, 2021, 3, e733-e744.	12.3	70
36	Assessment of quantification accuracy and image quality of a full-body dual-layer spectral <sc>CT</sc> system. Journal of Applied Clinical Medical Physics, 2018, 19, 204-217.	1.9	65

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37	X-ray Dark-field Radiography - In-Vivo Diagnosis of Lung Cancer in Mice. Scientific Reports, 2017, 7, 402.	3.3	63
38	Phase-Contrast CT: Qualitative and Quantitative Evaluation of Atherosclerotic Carotid Artery Plaque. Radiology, 2014, 271, 870-878.	7.3	62
39	Simultaneous dual-contrast multi-phase liver imaging using spectral photon-counting computed tomography: a proof-of-concept study. European Radiology Experimental, 2017, 1, 25.	3.4	61
40	Advanced contrast modalities for X-ray radiology: Phase-contrast and dark-field imaging using a grating interferometer. Zeitschrift Fur Medizinische Physik, 2010, 20, 7-16.	1.5	60
41	Quantitative X-ray phase-contrast computed tomography at 82 keV. Optics Express, 2013, 21, 4155.	3.4	59
42	Novelty detection of foreign objects in food using multi-modal X-ray imaging. Food Control, 2016, 67, 39-47.	5.5	53
43	Evaluation of a preclinical photon-counting CT prototype for pulmonary imaging. Scientific Reports, 2018, 8, 17386.	3.3	53
44	Improved Diagnosis of Pulmonary Emphysema Using In Vivo Dark-Field Radiography. Investigative Radiology, 2014, 49, 653-658.	6.2	52
45	Myoanatomy of the velvet worm leg revealed by laboratory-based nanofocus X-ray source tomography. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12378-12383.	7.1	52
46	Beam hardening effects in grating-based X-ray phase-contrast imaging. Medical Physics, 2011, 38, 1189-1195.	3.0	48
47	Insights into the Skeletonization, Lifestyle, and Affinity of the Unusual Ediacaran Fossil Corumbella. PLoS ONE, 2015, 10, e0114219.	2.5	47
48	Is multidetector CT-based bone mineral density and quantitative bone microstructure assessment at the spine still feasible using ultra-low tube current and sparse sampling?. European Radiology, 2017, 27, 5261-5271.	4.5	47
49	Bone mineral density measurements derived from dual-layer spectral CT enable opportunistic screening for osteoporosis. European Radiology, 2019, 29, 6355-6363.	4.5	46
50	Assessment of grating-based X-ray phase-contrast CT for differentiation of invasive ductal carcinoma and ductal carcinoma in situ in an experimental ex vivo set-up. European Radiology, 2013, 23, 381-387.	4.5	45
51	Development of a prototype gantry system for preclinical X-ray phase-contrast computed tomography. Medical Physics, 2011, 38, 5910-5915.	3.0	44
52	Aligned hemozoin crystals in curved clusters in malarial red blood cells revealed by nanoprobe X-ray Fe fluorescence and diffraction. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11184-11187.	7.1	44
53	Diagnosing and Mapping Pulmonary Emphysema on X-Ray Projection Images: Incremental Value of Grating-Based X-Ray Dark-Field Imaging. PLoS ONE, 2013, 8, e59526.	2.5	44
54	Statistical iterative reconstruction algorithm for X-ray phase-contrast CT. Scientific Reports, 2015, 5, 10452.	3.3	43

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55	Dark-field computed tomography reaches the human scale. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	43
56	Speckle-based x-ray phase-contrast imaging with a laboratory source and the scanning technique. Optics Letters, 2015, 40, 2822.	3.3	42
57	Toward Clinically Compatible Phase-Contrast Mammography. PLoS ONE, 2015, 10, e0130776.	2.5	41
58	Improved visualization of breast cancer features in multifocal carcinoma using phase-contrast and dark-field mammography: an ex vivo study. European Radiology, 2015, 25, 3659-3668.	4.5	41
59	X-ray Dark-Field Chest Imaging: Qualitative and Quantitative Results in Healthy Humans. Radiology, 2021, 301, 389-395.	7.3	41
60	Facilitated Diagnosis of Pneumothoraces in Newborn Mice Using X-ray Dark-Field Radiography. Investigative Radiology, 2016, 51, 597-601.	6.2	40
61	Coherence and wavefront characterization of Si-111 monochromators using double-grating interferometry. Journal of Synchrotron Radiation, 2010, 17, 299-307.	2.4	38
62	Visualization of neonatal lung injury associated with mechanical ventilation using x-ray dark-field radiography. Scientific Reports, 2016, 6, 24269.	3.3	38
63	AHA classification of coronary and carotid atherosclerotic plaques by grating-based phase-contrast computed tomography. European Radiology, 2016, 26, 3223-3233.	4.5	38
64	Hydrophobic Properties of Biofilm-Enriched Hybrid Mortar. Advanced Materials, 2016, 28, 8138-8143.	21.0	38
65	Large field-of-view tiled grating structures for X-ray phase-contrast imaging. Review of Scientific Instruments, 2017, 88, 015104.	1.3	38
66	Propagation-based Phase-Contrast X-ray Imaging at a Compact Light Source. Scientific Reports, 2017, 7, 4908.	3.3	38
67	X-ray phase tomography with near-field speckles for three-dimensional virtual histology. Optica, 2020, 7, 1221.	9.3	37
68	Evaluation of phase-contrast CT of breast tissue at conventional X-ray sources – presentation of selected findings. Zeitschrift Fur Medizinische Physik, 2013, 23, 212-221.	1.5	36
69	Nucleus-specific X-ray stain for 3D virtual histology. Scientific Reports, 2018, 8, 17855.	3.3	36
70	Quantitative imaging using high-energy X-ray phase-contrast CT with a 70 kVp polychromatic X-ray spectrum. Optics Express, 2015, 23, 523.	3.4	35
71	Simultaneous wood and metal particle detection on dark-field radiography. European Radiology Experimental, 2018, 2, 1.	3.4	35
72	X-ray nanotomography using near-field ptychography. Optics Express, 2015, 23, 12720.	3.4	34

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73	The versatile X-ray beamline of the Munich Compact Light Source: design, instrumentation and applications. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 1395-1414.	2.4	34
74	Bi-Directional X-Ray Phase-Contrast Mammography. <i>PLoS ONE</i> , 2014, 9, e93502.	2.5	34
75	X-ray phase-contrast tomography of porcine fat and rind. <i>Meat Science</i> , 2011, 88, 379-383.	5.5	33
76	Multimodal hard X-ray imaging of a mammography phantom at a compact synchrotron light source. <i>Journal of Synchrotron Radiation</i> , 2012, 19, 525-529.	2.4	33
77	Reduction of Metal Artifact in Single Photon-Counting Computed Tomography by Spectral-Driven Iterative Reconstruction Technique. <i>PLoS ONE</i> , 2015, 10, e0124831.	2.5	33
78	X-ray microtomography using correlation of near-field speckles for material characterization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 12569-12573.	7.1	33
79	Simulations of x-ray speckle-based dark-field and phase-contrast imaging with a polychromatic beam. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	32
80	Bone mineral density measurements in vertebral specimens and phantoms using dual-layer spectral computed tomography. <i>Scientific Reports</i> , 2017, 7, 17519.	3.3	32
81	MCL-1 gains occur with high frequency in lung adenocarcinoma and can be targeted therapeutically. <i>Nature Communications</i> , 2020, 11, 4527.	12.8	32
82	Imaging Liver Lesions Using Grating-Based Phase-Contrast Computed Tomography with Bi-Lateral Filter Post-Processing. <i>PLoS ONE</i> , 2014, 9, e83369.	2.5	31
83	Multi-contrast 3D X-ray imaging of porous and composite materials. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	31
84	Depiction of pneumothoraces in a large animal model using x-ray dark-field radiography. <i>Scientific Reports</i> , 2018, 8, 2602.	3.3	31
85	Experimental and numerical analysis of void structure in random packed beds of spheres. <i>Powder Technology</i> , 2021, 380, 613-628.	4.2	31
86	Constrained X-ray tensor tomography reconstruction. <i>Optics Express</i> , 2015, 23, 15134.	3.4	30
87	Grating-based phase-contrast and dark-field computed tomography: a single-shot method. <i>Scientific Reports</i> , 2017, 7, 7476.	3.3	30
88	Direct quantitative material decomposition employing grating-based X-ray phase-contrast CT. <i>Scientific Reports</i> , 2018, 8, 16394.	3.3	30
89	Visualizing Typical Features of Breast Fibroadenomas Using Phase-Contrast CT: An Ex-Vivo Study. <i>PLoS ONE</i> , 2014, 9, e97101.	2.5	29
90	FMT-PCCT: Hybrid Fluorescence Molecular Tomography and X-Ray Phase-Contrast CT Imaging of Mouse Models. <i>IEEE Transactions on Medical Imaging</i> , 2014, 33, 1434-1446.	8.9	29

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91	Correlation of X-Ray Vector Radiography to Bone Micro-Architecture. Scientific Reports, 2014, 4, 3695.	3.3	29
92	Enhancement of coherent X-ray diffraction from nanocrystals by introduction of X-ray optics. Optics Express, 2003, 11, 2329.	3.4	28
93	X-Ray Phase-Contrast Tomography of Renal Ischemia-Reperfusion Damage. PLoS ONE, 2014, 9, e109562.	2.5	28
94	Penalized maximum likelihood reconstruction for x-ray differential phase-contrast tomography. Medical Physics, 2015, 43, 188-194.	3.0	28
95	Improved Diagnostics by Assessing the Micromorphology of Breast Calcifications via X-Ray Dark-Field Radiography. Scientific Reports, 2016, 6, 36991.	3.3	28
96	K-edge subtraction imaging for coronary angiography with a compact synchrotron X-ray source. PLoS ONE, 2018, 13, e0208446.	2.5	28
97	In vivo Dynamic Phase-Contrast X-ray Imaging using a Compact Light Source. Scientific Reports, 2018, 8, 6788.	3.3	28
98	Optimization of tube voltage in X-ray dark-field chest radiography. Scientific Reports, 2019, 9, 8699.	3.3	28
99	X-Ray Phase-Contrast CT of a Pancreatic Ductal Adenocarcinoma Mouse Model. PLoS ONE, 2013, 8, e58439.	2.5	28
100	Non-binary phase gratings for x-ray imaging with a compact Talbot interferometer. Optics Express, 2014, 22, 547.	3.4	27
101	Dentinal tubules revealed with X-ray tensor tomography. Dental Materials, 2016, 32, 1189-1195.	3.5	27
102	Visualizing treatment delivery and deposition in mouse lungs using in vivo x-ray imaging. Journal of Controlled Release, 2019, 307, 282-291.	9.9	27
103	Trabecular bone anisotropy imaging with a compact laser-undulator synchrotron x-ray source. Scientific Reports, 2017, 7, 14477.	3.3	26
104	Differentiation between blood and iodine in a bovine brainâ€™Initial experience with Spectral Photon-Counting Computed Tomography (SPCCT). PLoS ONE, 2019, 14, e0212679.	2.5	26
105	Energy-Dispersive X-ray Absorption Spectroscopy with an Inverse Compton Source. Scientific Reports, 2020, 10, 8772.	3.3	26
106	Reflection of waveguided X-rays in two-dimensional nanostructures. Journal of Applied Crystallography, 2002, 35, 430-433.	4.5	25
107	An algebraic iterative reconstruction technique for differential X-ray phase-contrast computed tomography. Zeitschrift Fur Medizinische Physik, 2013, 23, 186-193.	1.5	25
108	Translation of Atherosclerotic Plaque Phase-Contrast CT Imaging from Synchrotron Radiation to a Conventional Lab-Based X-Ray Source. PLoS ONE, 2013, 8, e73513.	2.5	25

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109	Phase-Contrast Hounsfield Units of Fixated and Non-Fixated Soft-Tissue Samples. PLoS ONE, 2015, 10, e0137016.	2.5	25
110	Mono-Energy Coronary Angiography with a Compact Synchrotron Source. Scientific Reports, 2017, 7, 42211.	3.3	25
111	X-ray dark-field radiography facilitates the diagnosis of pulmonary fibrosis in a mouse model. Scientific Reports, 2017, 7, 340.	3.3	25
112	X-Ray Dark-field Imaging to Depict Acute Lung Inflammation in Mice. Scientific Reports, 2018, 8, 2096.	3.3	25
113	High resolution laboratory grating-based X-ray phase-contrast CT. Scientific Reports, 2018, 8, 15884.	3.3	25
114	Accurate effective atomic number determination with polychromatic grating-based phase-contrast computed tomography. Optics Express, 2018, 26, 15153.	3.4	25
115	A robust convolutional neural network for lung nodule detection in the presence of foreign bodies. Scientific Reports, 2020, 10, 12987.	3.3	25
116	Comparison of Contrast-to-Noise Ratios of Transmission and Dark-Field Signal in Grating-Based X-ray Imaging for Healthy Murine Lung Tissue. Zeitschrift Fur Medizinische Physik, 2013, 23, 236-242.	1.5	24
117	Coherent Superposition in Grating-Based Directional Dark-Field Imaging. PLoS ONE, 2013, 8, e61268.	2.5	24
118	Characterization of near-field ptychography. Optics Express, 2015, 23, 19728.	3.4	24
119	X-ray grating interferometer for materials-science imaging at a low-coherent wiggler source. Review of Scientific Instruments, 2011, 82, 113711.	1.3	23
120	Grating-based X-ray phase-contrast tomography of atherosclerotic plaque at high photon energies. Zeitschrift Fur Medizinische Physik, 2013, 23, 194-203.	1.5	23
121	Lung tumors on multimodal radiographs derived from grating-based X-ray imaging – A feasibility study. Physica Medica, 2014, 30, 352-357.	0.7	23
122	Analysis and correction of bias induced by phase stepping jitter in grating-based X-ray phase-contrast imaging. Optics Express, 2018, 26, 12707.	3.4	23
123	A high visibility Talbot-Lau neutron grating interferometer to investigate stress-induced magnetic degradation in electrical steel. Scientific Reports, 2020, 10, 1764.	3.3	23
124	X-ray grating-based phase tomography for 3D histology. RSC Advances, 2013, 3, 19816.	3.6	22
125	Methods for dynamic synchrotron X-ray respiratory imaging in live animals. Journal of Synchrotron Radiation, 2020, 27, 164-175.	2.4	22
126	Phase retrieval from one partial derivative. Optics Letters, 2013, 38, 4813.	3.3	21

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127	X-ray Phase-Contrast Computed Tomography of Human Coronary Arteries. <i>Investigative Radiology</i> , 2015, 50, 686-694.	6.2	21
128	Propagation-based phase-contrast x-ray tomography of cochlea using a compact synchrotron source. <i>Scientific Reports</i> , 2018, 8, 4922.	3.3	21
129	Dual-layer spectral computed tomography: measuring relative electron density. <i>European Radiology Experimental</i> , 2018, 2, 20.	3.4	21
130	CT scanning of membrane feed spacers – Impact of spacer model accuracy on hydrodynamic and solute transport modeling in membrane feed channels. <i>Journal of Membrane Science</i> , 2018, 564, 133-145.	8.2	21
131	Multimodal Precision Imaging of Pulmonary Nanoparticle Delivery in Mice: Dynamics of Application, Spatial Distribution, and Dosimetry. <i>Small</i> , 2019, 15, e1904112.	10.0	21
132	Imaging features in post-mortem x-ray dark-field chest radiographs and correlation with conventional x-ray and CT. <i>European Radiology Experimental</i> , 2019, 3, 25.	3.4	21
133	A tilted grating interferometer for full vector field differential x-ray phase contrast tomography. <i>Optics Express</i> , 2011, 19, 24890.	3.4	20
134	Mass Density Measurement of Mineralized Tissue with Grating-Based X-Ray Phase Tomography. <i>PLoS ONE</i> , 2016, 11, e0167797.	2.5	20
135	Qualitative and Quantitative Assessment of Emphysema Using Dark-Field Chest Radiography. <i>Radiology</i> , 2022, 303, 119-127.	7.3	20
136	A reconstruction method for cone-beam differential x-ray phase-contrast computed tomography. <i>Optics Express</i> , 2012, 20, 21512.	3.4	19
137	X-ray phase-contrast tomosynthesis for improved breast tissue discrimination. <i>European Journal of Radiology</i> , 2014, 83, 531-536.	2.6	19
138	Helical differential X-ray phase-contrast computed tomography. <i>Physica Medica</i> , 2014, 30, 374-379.	0.7	19
139	Non-iterative Directional Dark-field Tomography. <i>Scientific Reports</i> , 2017, 7, 3307.	3.3	19
140	X-ray imaging of a water bear offers a new look at tardigrade internal anatomy. <i>Zoological Letters</i> , 2019, 5, 14.	1.3	19
141	Coherent grazing exit x-ray scattering geometry for probing the structure of thin films. <i>Applied Physics Letters</i> , 2004, 84, 1847-1849.	3.3	18
142	Low-dose, phase-contrast mammography with high signal-to-noise ratio. <i>Biomedical Optics Express</i> , 2016, 7, 381.	2.9	18
143	DXA-equivalent quantification of bone mineral density using dual-layer spectral CT scout scans. <i>European Radiology</i> , 2019, 29, 4624-4634.	4.5	18
144	Assessment of intraductal carcinoma in situ (DCIS) using grating-based X-ray phase-contrast CT at conventional X-ray sources: An experimental ex-vivo study. <i>PLoS ONE</i> , 2019, 14, e0210291.	2.5	18

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145	Brain Connectivity Exposed by Anisotropic X-ray Dark-field Tomography. <i>Scientific Reports</i> , 2018, 8, 14345.	3.3	17
146	A step towards valid detection and quantification of lung cancer volume in experimental mice with contrast agent-based X-ray microtomography. <i>Scientific Reports</i> , 2019, 9, 1325.	3.3	17
147	Quantitative X-ray phase contrast computed tomography with grating interferometry. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2021, 48, 4171-4188.	6.4	17
148	Quantitative Three-Dimensional Imaging of Lipid, Protein, and Water Contents via X-Ray Phase-Contrast Tomography. <i>PLoS ONE</i> , 2016, 11, e0151889.	2.5	17
149	Dose-compatible grating-based phase-contrast mammography on mastectomy specimens using a compact synchrotron source. <i>Scientific Reports</i> , 2018, 8, 15700.	3.3	16
150	Spectral Angiography Material Decomposition Using an Empirical Forward Model and a Dictionary-Based Regularization. <i>IEEE Transactions on Medical Imaging</i> , 2018, 37, 2298-2309.	8.9	16
151	K-edge Subtraction Computed Tomography with a Compact Synchrotron X-ray Source. <i>Scientific Reports</i> , 2019, 9, 13332.	3.3	16
152	Advanced X-ray Imaging Technology. <i>Recent Results in Cancer Research</i> , 2020, 216, 3-30.	1.8	16
153	X-ray beam-position monitoring in the sub-micrometre and sub-second regime. <i>Journal of Synchrotron Radiation</i> , 2005, 12, 795-799.	2.4	15
154	Simulated Cystic Renal Lesions: Quantitative X-ray Phase-Contrast CT An in Vitro Phantom Study. <i>Radiology</i> , 2014, 272, 739-748.	7.3	15
155	3D Algebraic Iterative Reconstruction for Cone-Beam X-Ray Differential Phase-Contrast Computed Tomography. <i>PLoS ONE</i> , 2015, 10, e0117502.	2.5	15
156	Detection of sub-pixel fractures in X-ray dark-field tomography. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 121, 1243-1250.	2.3	15
157	Large-area full field x-ray differential phase-contrast imaging using 2D tiled gratings. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 225401.	2.8	15
158	Quantitative dual-energy micro-CT with a photon-counting detector for material science and non-destructive testing. <i>PLoS ONE</i> , 2019, 14, e0219659.	2.5	15
159	A proof of principle experiment for microbeam radiation therapy at the Munich compact light source. <i>Radiation and Environmental Biophysics</i> , 2020, 59, 111-120.	1.4	15
160	Opportunistic osteoporosis screening: contrast-enhanced dual-layer spectral CT provides accurate measurements of vertebral bone mineral density. <i>European Radiology</i> , 2021, 31, 3147-3155.	4.5	15
161	Lung nodule detection in chest X-rays using synthetic ground-truth data comparing CNN-based diagnosis to human performance. <i>Scientific Reports</i> , 2021, 11, 15857.	3.3	15
162	Hard X-ray phase-contrast tomography of non-homogeneous specimens: grating interferometry versus propagation-based imaging. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 1202-1209.	2.4	14

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163	Dual-energy micro-CT for quantifying the time-course and staining characteristics of ex-vivo animal organs treated with iodine- and gadolinium-based contrast agents. <i>Scientific Reports</i> , 2017, 7, 17387.	3.3	14
164	Grating-based spectral X-ray dark-field imaging for correlation with structural size measures. <i>Scientific Reports</i> , 2020, 10, 13195.	3.3	14
165	Qualitative comparison of non-destructive methods for inspection of carbon fiber-reinforced polymer laminates. <i>Journal of Composite Materials</i> , 2020, 54, 4325-4337.	2.4	14
166	Numerical comparison of X-ray differential phase contrast and attenuation contrast. <i>Biomedical Optics Express</i> , 2012, 3, 1141.	2.9	13
167	Evaluation of the potential of phase-contrast computed tomography for improved visualization of cancerous human liver tissue. <i>Zeitschrift Fur Medizinische Physik</i> , 2013, 23, 204-211.	1.5	13
168	Lens-term- and edge-effect in X-ray grating interferometry. <i>Biomedical Optics Express</i> , 2015, 6, 4812.	2.9	13
169	X-ray Dark-Field Vector Radiography—A Novel Technique for Osteoporosis Imaging. <i>Journal of Computer Assisted Tomography</i> , 2015, 39, 286-289.	0.9	13
170	Ex Vivo Perfusion-Simulation Measurements of Microbubbles as a Scattering Contrast Agent for Grating-Based X-Ray Dark-Field Imaging. <i>PLoS ONE</i> , 2015, 10, e0129512.	2.5	13
171	X-ray computed tomography using curvelet sparse regularization. <i>Medical Physics</i> , 2015, 42, 1555-1565.	3.0	13
172	Shape Identification of Primary Particles in Potash Alum Aggregates Using Three-Dimensional Tomography Data. <i>Crystal Growth and Design</i> , 2016, 16, 2685-2699.	3.0	13
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