Franz Pfeiffer

List of Publications by Citations

253 papers	10,029 citations	41 h-index	93 g-index
267 ext. papers	12,084 ext. citations	6 avg, IF	6.31 L-index

#	Paper	IF	Citations
253	Phase retrieval and differential phase-contrast imaging with low-brilliance X-ray sources. *Nature Physics*, **2006**, 2, 258-261	16.2	1333
252	X-ray phase imaging with a grating interferometer. *Optics Express*, **2005**, 13, 6296-304	3.3	942
251	High-resolution scanning x-ray diffraction microscopy. *Science*, **2008**, 321, 379-82	33.3	929
250	Ptychographic X-ray computed tomography at the nanoscale. *Nature*, **2010**, 467, 436-9	50.4	622
249	Probe retrieval in ptychographic coherent diffractive imaging. *Ultramicroscopy*, **2009**, 109, 338-43	3.1	396
248	X-ray ptychography. *Nature Photonics*, **2018**, 12, 9-17	33.9	252
247	Quantitative biological imaging by ptychographic x-ray diffraction microscopy. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 529-34	11.5	204
246	Influence of the overlap parameter on the convergence of the ptychographical iterative engine. *Ultramicroscopy*, **2008**, 108, 481-7	3.1	180
245	Emphysema diagnosis using X-ray dark-field imaging at a laser-driven compact synchrotron light source. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 17880-5	11.5	138
244	Toward clinical X-ray phase-contrast CT: demonstration of enhanced soft-tissue contrast in human specimen. *Investigative Radiology*, **2010**, 45, 445-52	10.1	134
243	Experimental results from a preclinical X-ray phase-contrast CT scanner. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 15691-6	11.5	118
242	Six-dimensional real and reciprocal space small-angle X-ray scattering tomography. *Nature*, **2015**, 527, 353-6	50.4	114
241	High-resolution tomographic imaging of a human cerebellum: comparison of absorption and grating-based phase contrast. *Journal of the Royal Society Interface*, **2010**, 7, 1665-76	4.1	114
240	Hard X-ray phase-contrast imaging with the Compact Light Source based on inverse Compton X-rays. *Journal of Synchrotron Radiation*, **2009**, 16, 43-7	2.4	108
239	The Munich Compact Light Source: initial performance measures. *Journal of Synchrotron Radiation*, **2016**, 23, 1137-42	2.4	102
238	High-resolution differential phase contrast imaging using a magnifying projection geometry with a microfocus x-ray source. *Applied Physics Letters*, **2007**, 90, 224101	3.4	97
237	Pulmonary emphysema diagnosis with a preclinical small-animal X-ray dark-field scatter-contrast scanner. *Radiology*, **2013**, 269, 427-33	20.5	93

236	Ptychographic characterization of the wavefield in the focus of reflective hard X-ray optics. *Ultramicroscopy*, **2010**, 110, 325-9	3.1	93
235	Advanced phase-contrast imaging using a grating interferometer. *Journal of Synchrotron Radiation*, **2009**, 16, 562-72	2.4	91
234	Coherent x-ray scattering. *Journal of Physics Condensed Matter*, **2004**, 16, 5003-5030	1.8	91
233	Quantitative phase-contrast tomography of a liquid phantom using a conventional x-ray tube source. *Optics Express*, **2009**, 17, 10010-8	3.3	87
232	Spectral Photon-counting CT: Initial Experience with Dual-Contrast Agent K-Edge Colonography. *Radiology*, **2017**, 283, 723-728	20.5	83
231	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, 5567-72	11.5	77
230	In-vivo X-ray Dark-Field Chest Radiography of a Pig. *Scientific Reports*, **2017**, 7, 4807	4.9	69
229	Directional x-ray dark-field imaging of strongly ordered systems. *Physical Review B*, **2010**, 82,	3.3	69
228	Dual-energy CT: a phantom comparison of different platforms for abdominal imaging. *European Radiology*, **2018**, 28, 2745-2755	8	65
227	Grating-based X-ray phase contrast for biomedical imaging applications. *Zeitschrift Fur Medizinische Physik*, **2013**, 23, 176-85	7.6	61
226	X-ray phase radiography and tomography of soft tissue using grating interferometry. *European Journal of Radiology*, **2008**, 68, S13-7	4.7	58
225	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	11.5	55
224	In Vivo Dark-Field Radiography for Early Diagnosis and Staging of Pulmonary Emphysema. *Investigative Radiology*, **2015**, 50, 430-5	10.1	55
223	Quantitative X-ray phase-contrast computed tomography at 82 keV. *Optics Express*, **2013**, 21, 4155-66	3.3	51
222	Improved In vivo Assessment of Pulmonary Fibrosis in Mice using X-Ray Dark-Field Radiography. *Scientific Reports*, **2015**, 5, 17492	4.9	51
221	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	7.6	51
220	Phase-contrast CT: qualitative and quantitative evaluation of atherosclerotic carotid artery plaque. *Radiology*, **2014**, 271, 870-8	20.5	50
219	Assessment of quantification accuracy and image quality of a full-body dual-layer spectral CT system. *Journal of Applied Clinical Medical Physics*, **2018**, 19, 204-217	2.3	48

218	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	8	47
217	X-ray dark-field imaging of the human lung-A feasibility study on a deceased body. *PLoS ONE*, **2018**, 13, e0204565	3.7	46
216	Dual-layer spectral computed tomography: Virtual non-contrast in comparison to true non-contrast images. *European Journal of Radiology*, **2018**, 104, 108-114	4.7	45
215	Improved diagnosis of pulmonary emphysema using in vivo dark-field radiography. *Investigative Radiology*, **2014**, 49, 653-8	10.1	44
214	X-ray Dark-field Radiography - In-Vivo Diagnosis of Lung Cancer in Mice. *Scientific Reports*, **2017**, 7, 402	4.9	42
213	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	11.5	41
212	Beam hardening effects in grating-based x-ray phase-contrast imaging. *Medical Physics*, **2011**, 38, 1189-95	4.4	41
211	Simultaneous dual-contrast multi-phase liver imaging using spectral photon-counting computed tomography: a proof-of-concept study. *European Radiology Experimental*, **2017**, 1, 25	4.5	40
210	Development of a prototype gantry system for preclinical x-ray phase-contrast computed tomography. *Medical Physics*, **2011**, 38, 5910-5	4.4	39
209	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, 381-7	8	38
208	Toward Clinically Compatible Phase-Contrast Mammography. *PLoS ONE*, **2015**, 10, e0130776	3.7	37
207	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	8	36
206	Statistical iterative reconstruction algorithm for X-ray phase-contrast CT. *Scientific Reports*, **2015**, 5, 10452	4.9	35
205	Speckle-based x-ray phase-contrast imaging with a laboratory source and the scanning technique. *Optics Letters*, **2015**, 40, 2822-5	3	35
204	Insights into the skeletonization, lifestyle, and affinity of the unusual Ediacaran fossil Corumbella. *PLoS ONE*, **2015**, 10, e0114219	3.7	35
203	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, 11184-7	11.5	35
202	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	3.7	35
201	Propagation-based Phase-Contrast X-ray Imaging at a Compact Light Source. *Scientific Reports*, **2017**, 7, 4908	4.9	32

200	Coherence and wavefront characterization of Si-111 monochromators using double-grating interferometry. *Journal of Synchrotron Radiation*, **2010**, 17, 299-307	2.4	32
199	Improved visualization of breast cancer features in multifocal carcinoma using phase-contrast and dark-field mammography: an ex vivo study. *European Radiology*, **2015**, 25, 3659-68	8	31
198	Facilitated Diagnosis of Pneumothoraces in Newborn Mice Using X-ray Dark-Field Radiography. *Investigative Radiology*, **2016**, 51, 597-601	10.1	31
197	Large field-of-view tiled grating structures for X-ray phase-contrast imaging. *Review of Scientific Instruments*, **2017**, 88, 015104	1.7	30
196	Bi-directional x-ray phase-contrast mammography. *PLoS ONE*, **2014**, 9, e93502	3.7	30
195	Multimodal hard X-ray imaging of a mammography phantom at a compact synchrotron light source. *Journal of Synchrotron Radiation*, **2012**, 19, 525-9	2.4	29
194	X-ray phase-contrast tomography of porcine fat and rind. *Meat Science*, **2011**, 88, 379-83	6.4	29
193	X-ray nanotomography using near-field ptychography. *Optics Express*, **2015**, 23, 12720-31	3.3	28
192	Visualization of neonatal lung injury associated with mechanical ventilation using x-ray dark-field radiography. *Scientific Reports*, **2016**, 6, 24269	4.9	28
191	Quantitative imaging using high-energy X-ray phase-contrast CT with a 70 kVp polychromatic X-ray spectrum. *Optics Express*, **2015**, 23, 523-35	3.3	27
190	Hydrophobic Properties of Biofilm-Enriched Hybrid Mortar. *Advanced Materials*, **2016**, 28, 8138-8143	24	27
189	Evaluation of phase-contrast CT of breast tissue at conventional X-ray sources - presentation of selected findings. *Zeitschrift Fur Medizinische Physik*, **2013**, 23, 212-21	7.6	27
188	Simulations of x-ray speckle-based dark-field and phase-contrast imaging with a polychromatic beam. *Journal of Applied Physics*, **2015**, 118, 113105	2.5	27
187	Imaging liver lesions using grating-based phase-contrast computed tomography with bi-lateral filter post-processing. *PLoS ONE*, **2014**, 9, e83369	3.7	27
186	Novelty detection of foreign objects in food using multi-modal X-ray imaging. *Food Control*, **2016**, 67, 39-47	6.2	27
185	X-ray microtomography using correlation of near-field speckles for material characterization. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 12569-73	11.5	26
184	Visualizing typical features of breast fibroadenomas using phase-contrast CT: an ex-vivo study. *PLoS ONE*, **2014**, 9, e97101	3.7	26
183	Enhancement of coherent X-ray diffraction from nanocrystals by introduction of X-ray optics. *Optics Express*, **2003**, 11, 2329-34	3.3	26

182	X-ray phase-contrast CT of a pancreatic ductal adenocarcinoma mouse model. *PLoS ONE*, **2013**, 8, e58439	3.7	26
181	FMT-PCCT: hybrid fluorescence molecular tomography-x-ray phase-contrast CT imaging of mouse models. *IEEE Transactions on Medical Imaging*, **2014**, 33, 1434-46	11.7	25
180	Bone mineral density measurements in vertebral specimens and phantoms using dual-layer spectral computed tomography. *Scientific Reports*, **2017**, 7, 17519	4.9	25
179	Bone mineral density measurements derived from dual-layer spectral CT enable opportunistic screening for osteoporosis. *European Radiology*, **2019**, 29, 6355-6363	8	24
178	Correlation of X-ray vector radiography to bone micro-architecture. *Scientific Reports*, **2014**, 4, 3695	4.9	24
177	Depiction of pneumothoraces in a large animal model using x-ray dark-field radiography. *Scientific Reports*, **2018**, 8, 2602	4.9	24
176	AHA classification of coronary and carotid atherosclerotic plaques by grating-based phase-contrast computed tomography. *European Radiology*, **2016**, 26, 3223-33	8	24
175	Multi-contrast 3D X-ray imaging of porous and composite materials. *Applied Physics Letters*, **2015**, 106, 154102	3.4	23
174	Penalized maximum likelihood reconstruction for x-ray differential phase-contrast tomography. *Medical Physics*, **2016**, 43, 188	4.4	23
173	X-ray phase-contrast tomography of renal ischemia-reperfusion damage. *PLoS ONE*, **2014**, 9, e109562	3.7	23
172	Translation of atherosclerotic plaque phase-contrast CT imaging from synchrotron radiation to a conventional lab-based X-ray source. *PLoS ONE*, **2013**, 8, e73513	3.7	23
171	Grating-based X-ray phase-contrast tomography of atherosclerotic plaque at high photon energies. *Zeitschrift Fur Medizinische Physik*, **2013**, 23, 194-203	7.6	22
170	Lung tumors on multimodal radiographs derived from grating-based X-ray imaging--a feasibility study. *Physica Medica*, **2014**, 30, 352-7	2.7	21
169	Constrained X-ray tensor tomography reconstruction. *Optics Express*, **2015**, 23, 15134-51	3.3	21
168	X-ray grating interferometer for materials-science imaging at a low-coherent wiggler source. *Review of Scientific Instruments*, **2011**, 82, 113711	1.7	21
167	Evaluation of a preclinical photon-counting CT prototype for pulmonary imaging. *Scientific Reports*, **2018**, 8, 17386	4.9	21
166	Direct quantitative material decomposition employing grating-based X-ray phase-contrast CT. *Scientific Reports*, **2018**, 8, 16394	4.9	21
165	Mono-Energy Coronary Angiography with a Compact Synchrotron Source. *Scientific Reports*, **2017**, 7, 42211	4.9	20

164	Accurate effective atomic number determination with polychromatic grating-based phase-contrast computed tomography. *Optics Express*, **2018**, 26, 15153-15166	3.3	20
163	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, 236-42	7.6	20
162	Grating-based phase-contrast and dark-field computed tomography: a single-shot method. *Scientific Reports*, **2017**, 7, 7476	4.9	20
161	Trabecular bone anisotropy imaging with a compact laser-undulator synchrotron x-ray source. *Scientific Reports*, **2017**, 7, 14477	4.9	20
160	Reduction of metal artifact in single photon-counting computed tomography by spectral-driven iterative reconstruction technique. *PLoS ONE*, **2015**, 10, e0124831	3.7	20
159	Phase-Contrast Hounsfield Units of Fixated and Non-Fixated Soft-Tissue Samples. *PLoS ONE*, **2015**, 10, e0137016	3.7	20
158	Optimization of tube voltage in X-ray dark-field chest radiography. *Scientific Reports*, **2019**, 9, 8699	4.9	19
157	Non-binary phase gratings for x-ray imaging with a compact Talbot interferometer. *Optics Express*, **2014**, 22, 547-56	3.3	19
156	K-edge subtraction imaging for coronary angiography with a compact synchrotron X-ray source. *PLoS ONE*, **2018**, 13, e0208446	3.7	19
155	High resolution laboratory grating-based X-ray phase-contrast CT. *Scientific Reports*, **2018**, 8, 15884	4.9	19
154	Differentiation between blood and iodine in a bovine brain-Initial experience with Spectral Photon-Counting Computed Tomography (SPCCT). *PLoS ONE*, **2019**, 14, e0212679	3.7	18
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152	X-Ray Dark-field Imaging to Depict Acute Lung Inflammation in Mice. *Scientific Reports*, **2018**, 8, 2096	4.9	18
151	An algebraic iterative reconstruction technique for differential X-ray phase-contrast computed tomography. *Zeitschrift Fur Medizinische Physik*, **2013**, 23, 186-93	7.6	18
150	X-ray phase-contrast tomosynthesis for improved breast tissue discrimination. *European Journal of Radiology*, **2014**, 83, 531-6	4.7	18
149	Coherent superposition in grating-based directional dark-field imaging. *PLoS ONE*, **2013**, 8, e61268	3.7	18
148	A tilted grating interferometer for full vector field differential x-ray phase contrast tomography. *Optics Express*, **2011**, 19, 24890-6	3.3	18
147	X-ray dark-field radiography facilitates the diagnosis of pulmonary fibrosis in a mouse model. *Scientific Reports*, **2017**, 7, 340	4.9	17

146	Coherent grazing exit x-ray scattering geometry for probing the structure of thin films. *Applied Physics Letters*, **2004**, 84, 1847-1849	3.4	17
145	The versatile X-ray beamline of the Munich Compact Light Source: design, instrumentation and applications. *Journal of Synchrotron Radiation*, **2020**, 27, 1395-1414	2.4	17
144	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	14.4	17
143	Improved Diagnostics by Assessing the Micromorphology of Breast Calcifications via X-Ray Dark-Field Radiography. *Scientific Reports*, **2016**, 6, 36991	4.9	17
142	Visualizing treatment delivery and deposition in mouse lungs using in vivo x-ray imaging. *Journal of Controlled Release*, **2019**, 307, 282-291	11.7	16
141	X-ray grating-based phase tomography for 3D histology. *RSC Advances*, **2013**, 3, 19816	3.7	16
140	Phase retrieval from one partial derivative. *Optics Letters*, **2013**, 38, 4813-6	3	16
139	Nucleus-specific X-ray stain for 3D virtual histology. *Scientific Reports*, **2018**, 8, 17855	4.9	16
138	Dual-layer spectral computed tomography: measuring relative electron density. *European Radiology Experimental*, **2018**, 2, 20	4.5	16
137	Imaging features in post-mortem x-ray dark-field chest radiographs and correlation with conventional x-ray and CT. *European Radiology Experimental*, **2019**, 3, 25	4.5	15
136	Energy-Dispersive X-ray Absorption Spectroscopy with an Inverse Compton Source. *Scientific Reports*, **2020**, 10, 8772	4.9	15
135	In vivo Dynamic Phase-Contrast X-ray Imaging using a Compact Light Source. *Scientific Reports*, **2018**, 8, 6788	4.9	15
134	Multimodal Precision Imaging of Pulmonary Nanoparticle Delivery in Mice: Dynamics of Application, Spatial Distribution, and Dosimetry. *Small*, **2019**, 15, e1904112	11	15
133	A reconstruction method for cone-beam differential x-ray phase-contrast computed tomography. *Optics Express*, **2012**, 20, 21512-9	3.3	15
132	X-ray phase tomography with near-field speckles for three-dimensional virtual histology. *Optica*, **2020**, 7, 1221	8.6	15
131	Large-area full field x-ray differential phase-contrast imaging using 2D tiled gratings. *Journal Physics D: Applied Physics*, **2017**, 50, 225401	3	14
130	A high visibility Talbot-Lau neutron grating interferometer to investigate stress-induced magnetic degradation in electrical steel. *Scientific Reports*, **2020**, 10, 1764	4.9	14
129	Low-dose, phase-contrast mammography with high signal-to-noise ratio. *Biomedical Optics Express*, **2016**, 7, 381-91	3.5	14

128	Dentinal tubules revealed with X-ray tensor tomography. *Dental Materials*, **2016**, 32, 1189-95	5.7	14
127	Detection of sub-pixel fractures in X-ray dark-field tomography. *Applied Physics A: Materials Science and Processing*, **2015**, 121, 1243-1250	2.6	13
126	Propagation-based phase-contrast x-ray tomography of cochlea using a compact synchrotron source. *Scientific Reports*, **2018**, 8, 4922	4.9	13
125	CT scanning of membrane feed spacers Impact of spacer model accuracy on hydrodynamic and solute transport modeling in membrane feed channels. *Journal of Membrane Science*, **2018**, 564, 133-145	9.6	13
124	Helical differential X-ray phase-contrast computed tomography. *Physica Medica*, **2014**, 30, 374-9	2.7	13
123	X-ray phase-contrast computed tomography of human coronary arteries. *Investigative Radiology*, **2015**, 50, 686-94	10.1	13
122	Quantitative Three-Dimensional Imaging of Lipid, Protein, and Water Contents via X-Ray Phase-Contrast Tomography. *PLoS ONE*, **2016**, 11, e0151889	3.7	13
121	Shape Identification of Primary Particles in Potash Alum Aggregates Using Three-Dimensional Tomography Data. *Crystal Growth and Design*, **2016**, 16, 2685-2699	3.5	12
120	Analysis and correction of bias induced by phase stepping jitter in grating-based X-ray phase-contrast imaging. *Optics Express*, **2018**, 26, 12707-12722	3.3	12
119	Evaluation of the potential of phase-contrast computed tomography for improved visualization of cancerous human liver tissue. *Zeitschrift Fur Medizinische Physik*, **2013**, 23, 204-11	7.6	12
118	3D algebraic iterative reconstruction for cone-beam x-ray differential phase-contrast computed tomography. *PLoS ONE*, **2015**, 10, e0117502	3.7	12
117	X-ray beam-position monitoring in the sub-micrometre and sub-second regime. *Journal of Synchrotron Radiation*, **2005**, 12, 795-9	2.4	12
116	Mass Density Measurement of Mineralized Tissue with Grating-Based X-Ray Phase Tomography. *PLoS ONE*, **2016**, 11, e0167797	3.7	12
115	DXA-equivalent quantification of bone mineral density using dual-layer spectral CT scout scans. *European Radiology*, **2019**, 29, 4624-4634	8	12
114	X-ray computed tomography using curvelet sparse regularization. *Medical Physics*, **2015**, 42, 1555-65	4.4	11
113	Increased cell survival and cytogenetic integrity by spatial dose redistribution at a compact synchrotron X-ray source. *PLoS ONE*, **2017**, 12, e0186005	3.7	11
112	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. *Scientific Reports*, **2017**, 7, 17387	4.9	11
111	Lens-term- and edge-effect in X-ray grating interferometry. *Biomedical Optics Express*, **2015**, 6, 4812-24	3.5	11

110	Ex Vivo Perfusion-Simulation Measurements of Microbubbles as a Scattering Contrast Agent for Grating-Based X-Ray Dark-Field Imaging. *PLoS ONE*, **2015**, 10, e0129512	3.7	11
109	Simulated cystic renal lesions: quantitative X-ray phase-contrast CT--an in vitro phantom study. *Radiology*, **2014**, 272, 739-48	20.5	11
108	Methods for dynamic synchrotron X-ray respiratory imaging in live animals. *Journal of Synchrotron Radiation*, **2020**, 27, 164-175	2.4	11
107	Imaging of metastatic lymph nodes by X-ray phase-contrast micro-tomography. *PLoS ONE*, **2013**, 8, e54047	3.7	11
106	Experimental and numerical analysis of void structure in random packed beds of spheres. *Powder Technology*, **2021**, 380, 613-628	5.2	11
105	X-ray dark-field vector radiography-a novel technique for osteoporosis imaging. *Journal of Computer Assisted Tomography*, **2015**, 39, 286-9	2.2	10
104	A robust convolutional neural network for lung nodule detection in the presence of foreign bodies. *Scientific Reports*, **2020**, 10, 12987	4.9	10
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99	Non-iterative Directional Dark-field Tomography. *Scientific Reports*, **2017**, 7, 3307	4.9	9
98	A proof of principle experiment for microbeam radiation therapy at the Munich compact light source. *Radiation and Environmental Biophysics*, **2020**, 59, 111-120	2	9
97	Brain Connectivity Exposed by Anisotropic X-ray Dark-field Tomography. *Scientific Reports*, **2018**, 8, 14345	4.9	9
96	Spectral Angiography Material Decomposition Using an Empirical Forward Model and a Dictionary-Based Regularization. *IEEE Transactions on Medical Imaging*, **2018**, 37, 2298-2309	11.7	9
95	Grating-based X-ray dark-field computed tomography for the characterization of friction stir welds: A feasibility study. *Materials Characterization*, **2017**, 129, 143-148	3.9	8
94	K-edge Subtraction Computed Tomography with a Compact Synchrotron X-ray Source. *Scientific Reports*, **2019**, 9, 13332	4.9	8
93	Contrast-to-noise ratios and thickness-normalized, ventilation-dependent signal levels in dark-field and conventional in vivo thorax radiographs of two pigs. *PLoS ONE*, **2019**, 14, e0217858	3.7	8

92	A step towards valid detection and quantification of lung cancer volume in experimental mice with contrast agent-based X-ray microtomography. *Scientific Reports*, **2019**, 9, 1325	4.9	8
91	Nanoscopic X-ray tomography for correlative microscopy of a small meiofaunal sea-cucumber. *Scientific Reports*, **2020**, 10, 3960	4.9	8
90	Simultaneous wood and metal particle detection on dark-field radiography. *European Radiology Experimental*, **2018**, 2, 1	4.5	8
89	Prediction of vertebral failure load by using x-ray vector radiographic imaging. *Radiology*, **2015**, 275, 553-61	20.5	8
88	Numerical comparison of X-ray differential phase contrast and attenuation contrast. *Biomedical Optics Express*, **2012**, 3, 1141-8	3.5	8
87	Device for source position stabilization and beam parameter monitoring at inverse Compton X-ray sources. *Journal of Synchrotron Radiation*, **2019**, 26, 1546-1553	2.4	8
86	Functional morphology of a lobopod: case study of an onychophoran leg. *Royal Society Open Science*, **2019**, 6, 191200	3.3	7
85	Qualitative and Quantitative Evaluation of Structural Myocardial Alterations by Grating-Based Phase-Contrast Computed Tomography. *Investigative Radiology*, **2018**, 53, 26-34	10.1	7
84	Quantitative dual-energy micro-CT with a photon-counting detector for material science and non-destructive testing. *PLoS ONE*, **2019**, 14, e0219659	3.7	7
83	Fast one-dimensional wave-front propagation for x-ray differential phase-contrast imaging. *Biomedical Optics Express*, **2014**, 5, 3739-47	3.5	7
82	Dual-energy micro-CT with a dual-layer, dual-color, single-crystal scintillator. *Optics Express*, **2017**, 25, 6924-6935	3.3	7
81	X-ray phase contrast imaging using a grating interferometer. *Europhysics News*, **2006**, 37, 13-15	0.2	7
80	X-ray deconvolution microscopy. *Biomedical Optics Express*, **2016**, 7, 1227-39	3.5	7
79	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. *PLoS ONE*, **2019**, 14, e0210291	3.7	7
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73	Dark-field imaging in coronary atherosclerosis. *European Journal of Radiology*, **2017**, 94, 38-45	4.7	6
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