

# Ralf Hendrik Menk

## List of Publications by Year in descending order

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67  
papers

2,444  
citations

257101

24  
h-index

197535

49  
g-index

68  
all docs

68  
docs citations

68  
times ranked

2473  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mammography with Synchrotron Radiation: Phase-Detection Techniques. <i>Radiology</i> , 2000, 215, 286-293.	3.6	265
2	Mammography with Synchrotron Radiation: First Clinical Experience with Phase-Detection Technique. <i>Radiology</i> , 2011, 259, 684-694.	3.6	205
3	<i>&lt;i&gt;PITRE&lt;/i&gt;</i> : software for phase-sensitive X-ray image processing and tomography reconstruction. <i>Journal of Synchrotron Radiation</i> , 2012, 19, 836-845.	1.0	203
4	An innovative digital imaging set-up allowing a low-dose approach to phase contrast applications in the medical field. <i>Medical Physics</i> , 2001, 28, 1610-1619.	1.6	190
5	Functionalized gold nanoparticles: a detailed in vivo multimodal microscopic brain distribution study. <i>Nanoscale</i> , 2010, 2, 2826.	2.8	108
6	X-ray refraction effects: application to the imaging of biological tissues. <i>British Journal of Radiology</i> , 2003, 76, 301-308.	1.0	103
7	The SYRMEP Beamline of Elettra: Clinical Mammography and Bio-medical Applications. <i>AIP Conference Proceedings</i> , 2010, , .	0.3	87
8	Invited Article: Coherent imaging using seeded free-electron laser pulses with variable polarization: First results and research opportunities. <i>Review of Scientific Instruments</i> , 2013, 84, 051301.	0.6	77
9	Measurement of the linear attenuation coefficients of breast tissues by synchrotron radiation computed tomography. <i>Physics in Medicine and Biology</i> , 2010, 55, 4993-5005.	1.6	72
10	The mammography project at the SYRMEP beamline. <i>European Journal of Radiology</i> , 2008, 68, S58-S62.	1.2	70
11	X-ray detection of structural orientation in human articular cartilage. <i>Osteoarthritis and Cartilage</i> , 2004, 12, 97-105.	0.6	65
12	Three-image diffraction enhanced imaging algorithm to extract absorption, refraction, and ultrasmall-angle scattering. <i>Applied Physics Letters</i> , 2007, 90, 114102.	1.5	64
13	An IAEA multi-technique X-ray spectrometry endstation at Elettra Sincrotrone Trieste: benchmarking results and interdisciplinary applications. <i>Journal of Synchrotron Radiation</i> , 2018, 25, 189-203.	1.0	64
14	Gold nanoparticle labeling of cells is a sensitive method to investigate cell distribution and migration in animal models of human disease. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2011, 7, 647-654.	1.7	59
15	In vivo visualization of gold-loaded cells in mice using x-ray computed tomography. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2013, 9, 284-292.	1.7	56
16	Generalized diffraction enhanced imaging to retrieve absorption, refraction and scattering effects. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 3077-3089.	1.3	43
17	Clinical mammography at the SYRMEP beam line. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 572, 237-240.	0.7	40
18	Investigation of the imaging quality of synchrotron-based phase-contrast mammographic tomography. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 365401.	1.3	40

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19	A detailed study of gold-nanoparticle loaded cells using X-ray based techniques for cell-tracking applications with single-cell sensitivity. <i>Nanoscale</i> , 2013, 5, 3337.	2.8	39
20	High contrast microstructural visualization of natural acellular matrices by means of phase-based x-ray tomography. <i>Scientific Reports</i> , 2016, 5, 18156.	1.6	36
21	Generalized diffraction enhanced imaging: Application to tomography. <i>European Journal of Radiology</i> , 2008, 68, S3-S7.	1.2	35
22	Synchrotron- and laboratory-based X-ray phase-contrast imaging for imaging mouse articular cartilage in the absence of radiopaque contrast agents. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130127.	1.6	27
23	Experimental evaluation of a simple algorithm to enhance the spatial resolution in scanned radiographic systems. <i>Medical Physics</i> , 2000, 27, 2609-2616.	1.6	26
24	The PERCIVAL soft X-ray imager. <i>Journal of Instrumentation</i> , 2014, 9, C03056-C03056.	0.5	26
25	Towards a multi-element silicon drift detector system for fluorescence spectroscopy in the soft X-ray regime. <i>X-Ray Spectrometry</i> , 2017, 46, 313-318.	0.9	26
26	Evaluation of microbubble contrast agents for dynamic imaging with x-ray phase contrast. <i>Scientific Reports</i> , 2015, 5, 12509.	1.6	25
27	Double beam bent Laue monochromator for coronary angiography. <i>Review of Scientific Instruments</i> , 1995, 66, 1379-1381.	0.6	24
28	Single-cell resolution in high-resolution synchrotron X-ray CT imaging with gold nanoparticles. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 242-250.	1.0	22
29	A three-image algorithm for hard x-ray grating interferometry. <i>Optics Express</i> , 2013, 21, 19401.	1.7	21
30	Quantification of microbubble concentration through x-ray phase contrast imaging. <i>Applied Physics Letters</i> , 2013, 103, 114105.	1.5	21
31	X-ray Holography for Structural Imaging. <i>Journal of Synchrotron Radiation</i> , 1998, 5, 315-319.	1.0	20
32	A simple way to track single gold-loaded alginate microcapsules using x-ray CT in small animal longitudinal studies. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2014, 10, 1821-1828.	1.7	19
33	Synchrotron-based in vivo tracking of implanted mammalian cells. <i>European Journal of Radiology</i> , 2008, 68, S156-S159.	1.2	17
34	An Improved Nonlocal History-Dependent Model for Gain and Noise in Avalanche Photodiodes Based on Energy Balance Equation. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 1823-1829.	1.6	17
35	A Gaussian extension for Diffraction Enhanced Imaging. <i>Scientific Reports</i> , 2018, 8, 362.	1.6	17
36	Analysis of Intracellular Magnesium and Mineral Depositions during Osteogenic Commitment of 3D Cultured Saos2 Cells. <i>International Journal of Molecular Sciences</i> , 2020, 21, 2368.	1.8	16

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37	X-ray fluorescence holography: A different approach to data collection. <i>Physical Review B</i> , 2000, 62, 5273-5276.	1.1	14
38	A new large solid angle multi-element silicon drift detector system for low energy X-ray fluorescence spectroscopy. <i>Journal of Instrumentation</i> , 2018, 13, C03032-C03032.	0.5	14
39	X-ray fluorescence elemental mapping and microscopy to follow hepatic disposition of a Gd-based magnetic resonance imaging contrast agent. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2011, 38, 834-845.	0.9	12
40	A new detector system for low energy X-ray fluorescence coupled with soft X-ray microscopy: First tests and characterization. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016, 816, 113-118.	0.7	12
41	Characterization of the Percival detector with soft X-rays. <i>Journal of Synchrotron Radiation</i> , 2021, 28, 131-145.	1.0	12
42	A dual line multicell ionization chamber for transvenous coronary angiography with synchrotron radiation. <i>Review of Scientific Instruments</i> , 1995, 66, 2327-2329.	0.6	11
43	Development of a two-dimensional virtual-pixel X-ray imaging detector for time-resolved structure research. <i>Journal of Synchrotron Radiation</i> , 2004, 11, 177-186.	1.0	11
44	Hiresmon: A Fast High Resolution Beam Position Monitor for Medium Hard and Hard X-Rays. <i>AIP Conference Proceedings</i> , 2007, . .	0.3	10
45	Report on recent results of the PERCIVAL soft X-ray imager. <i>Journal of Instrumentation</i> , 2016, 11, C11020-C11020.	0.5	10
46	The Percival 2-Megapixel monolithic active pixel imager. <i>Journal of Instrumentation</i> , 2019, 14, C01006-C01006.	0.5	9
47	Motion artifacts assessment and correction using optical tracking in synchrotron radiation breast CT. <i>Medical Physics</i> , 2021, 48, 5343-5355.	1.6	8
48	A novel multi-cell silicon drift detector for Low Energy X-Ray Fluorescence (LEXRF) spectroscopy. <i>Journal of Instrumentation</i> , 2014, 9, C12017-C12017.	0.5	7
49	First results of a novel Silicon Drift Detector array designed for low energy X-ray fluorescence spectroscopy. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016, 824, 452-454.	0.7	7
50	Influence of $\Gamma$ p-doping on the behaviour of GaAs/AlGaAs SAM-APDs for synchrotron radiation. <i>Journal of Instrumentation</i> , 2017, 12, C11017-C11017.	0.5	7
51	Gain and noise in GaAs/AlGaAs avalanche photodiodes with thin multiplication regions. <i>Journal of Instrumentation</i> , 2019, 14, C01003-C01003.	0.5	7
52	Biological X-ray diffraction measurements with a novel two-dimensional gaseous pixel detector. <i>Journal of Synchrotron Radiation</i> , 1999, 6, 985-994.	1.0	6
53	Detectors for present and future light sources at Elettra. <i>AIP Conference Proceedings</i> , 2019, . .	0.3	6
54	Synchrotron Radiation Mammography: Clinical Experimentation. <i>AIP Conference Proceedings</i> , 2007, . .	0.3	5

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55	Trace-element XAFS sensitivity: a stress test for a new XRF multi-detector. <i>Journal of Synchrotron Radiation</i> , 2021, 28, 1811-1819.	1.0	5
56	Breast computed tomography with the PICASSO detector: A feasibility study. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 628, 419-422.	0.7	4
57	X-ray micro beam analysis of the photoresponse of an enlarged CVD diamond single crystal. <i>Diamond and Related Materials</i> , 2013, 34, 36-40.	1.8	4
58	Perspectives for microbeam irradiation at the SYRMEP beamline. <i>Journal of Synchrotron Radiation</i> , 2021, 28, 410-418.	1.0	4
59	On the use of clessidra prism arrays in long-focal-length X-ray focusing. <i>Journal of Synchrotron Radiation</i> , 2008, 15, 411-413.	1.0	3
60	Progress in Cell Marking for Synchrotron X-ray Computed Tomography. , 2010, , .		3
61	Development and tests of a new prototype detector for the XAFS beamline at Elettra Synchrotron in Trieste. <i>Journal of Physics: Conference Series</i> , 2016, 689, 012017.	0.3	3
62	PICASSO: A silicon microstrip detector for mammography with synchrotron radiation. , 2008, , .		1
63	Synchrotron Radiation Study of Gain, Noise, and Collection Efficiency of GaAs SAM-APDs with Staircase Structure. <i>Sensors</i> , 2022, 22, 4598.	2.1	1
64	Diffraction of partially coherent X-rays in clessidra prism arrays. <i>Journal of Synchrotron Radiation</i> , 2008, 15, 606-611.	1.0	0
65	Investigation of the behaviour of GaAs/AlGaAs SAM-APDs for synchrotron radiation. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	0
66	Imaging with high dynamic using an ionization chamber. , 2003, , .		0
67	AC/DC: The FERMI FEL Split and Delay Optical Device for Ultrafast X-ray Science. <i>Photonics</i> , 2022, 9, 314.	0.9	0