

Peter Homolka

List of Publications by Year in descending order

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63
papers

1,331
citations

394421

19
h-index

361022

35
g-index

68
all docs

68
docs citations

68
times ranked

1340
citing authors

#	ARTICLE	IF	CITATIONS
1	A head-mounted operating binocular for augmented reality visualization in medicine - design and initial evaluation. IEEE Transactions on Medical Imaging, 2002, 21, 991-997.	8.9	149
2	Correlation of insertion torques with bone mineral density from dental quantitative CT in the mandible. Clinical Oral Implants Research, 2003, 14, 616-620.	4.5	118
3	Bone Mineral Density Measurement with Dental Quantitative CT Prior to Dental Implant Placement in Cadaver Mandibles: Pilot Study. Radiology, 2002, 224, 247-252.	7.3	95
4	In-vitro assessment of a registration protocol for image guided implant dentistry. Clinical Oral Implants Research, 2001, 12, 69-78.	4.5	86
5	Image quality and stability of image-guided radiotherapy (IGRT) devices: A comparative study. Radiotherapy and Oncology, 2009, 93, 1-7.	0.6	70
6	Wobbling splatting—a fast perspective volume rendering method for simulation of x-ray images from CT. Physics in Medicine and Biology, 2005, 50, N73-N84.	3.0	59
7	A modular software system for computer-aided surgery and its first application in oral implantology. IEEE Transactions on Medical Imaging, 2000, 19, 616-620.	8.9	54
8	Rigid 2D/3D slice-to-volume registration and its application on fluoroscopic CT images. Medical Physics, 2006, 34, 246-255.	3.0	40
9	CT Density Measurements for Characterization of Adrenal Tumors Ex Vivo: Variability Among Three CT Scanners. American Journal of Roentgenology, 2004, 182, 671-675.	2.2	39
10	Diagnostic reference levels in pediatric radiology in Austria. European Radiology, 2010, 20, 1572-1579.	4.5	39
11	Application of BI-RADS Descriptors in Contrast-Enhanced Dual-Energy Mammography: Comparison with MRI. Breast Care, 2017, 12, 212-216.	1.4	37
12	Dose modulated retrospective ECG-gated versus non-gated 64-row CT angiography of the aorta at the same radiation dose: Comparison of motion artifacts, diagnostic confidence and signal-to-noise-ratios. European Journal of Radiology, 2012, 81, e585-e590.	2.6	34
13	Adapted preparation technique for screw-type implants: explorative in vitro pilot study in a porcine bone model. Clinical Oral Implants Research, 2007, 18, 103-107.	4.5	30
14	Coronary artery stent imaging with 128-slice dual-source CT using high-pitch spiral acquisition in a cardiac phantom: comparison with the sequential and low-pitch spiral mode. European Radiology, 2010, 20, 2084-2091.	4.5	28
15	Impact of Ambient Light and Window Settings on the Detectability of Catheters on Soft-Copy Display of Chest Radiographs at Bedside. American Journal of Roentgenology, 2003, 181, 1415-1421.	2.2	26
16	Temperature dependence of HU values for various water equivalent phantom materials. Physics in Medicine and Biology, 2002, 47, 2917-2923.	3.0	25
17	An anthropomorphic phantom representing a prematurely born neonate for digital x-ray imaging using 3D printing: Proof of concept and comparison of image quality from different systems. Scientific Reports, 2019, 9, 14357.	3.3	22
18	Optimization of the composition of phantom materials for computed tomography. Physics in Medicine and Biology, 2002, 47, 2907-2916.	3.0	19

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19	Contrast-enhanced dual energy mammography with a novel anode/filter combination and artifact reduction: a feasibility study. <i>European Radiology</i> , 2016, 26, 1575-1581.	4.5	19
20	Effect of staff training on radiation dose in pediatric CT. <i>European Journal of Radiology</i> , 2015, 84, 1574-1578.	2.6	18
21	Design of a head phantom produced on a 3D rapid prototyping printer and comparison with a RANDO and 3M lucite head phantom in eye dosimetry applications. <i>Physics in Medicine and Biology</i> , 2017, 62, 3158-3174.	3.0	18
22	Production of phantom materials using polymer powder sintering under vacuum. <i>Physics in Medicine and Biology</i> , 2002, 47, N47-N52.	3.0	16
23	Classification of X-Ray Attenuation Properties of Additive Manufacturing and 3D Printing Materials Using Computed Tomography From 70 to 140ÅkVp. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 763960.	4.1	14
24	Local calibrated bone mineral density in the mandible presented using a color coding scheme. <i>Medical Engineering and Physics</i> , 2001, 23, 673-677.	1.7	11
25	Dose sensitivity of three phantoms used for quality assurance in digital mammography. <i>Physics in Medicine and Biology</i> , 2013, 58, N13-N23.	3.0	11
26	Development and production of a prototype iodine contrast phantom for CEDEM. <i>Physics in Medicine and Biology</i> , 2013, 58, N25-N35.	3.0	11
27	Diagnostic Reference Levels for conventional radiography and fluoroscopy in Austria: Results and updated National Diagnostic Reference Levels derived from a nationwide survey. <i>European Journal of Radiology</i> , 2019, 113, 135-139.	2.6	11
28	Fast DRR Generation for 2D/3D Registration. <i>Lecture Notes in Computer Science</i> , 2005, 8, 960-967.	1.3	11
29	Phase structure and graviton propagators in lattice formulations of four-dimensional quantum gravity. <i>Classical and Quantum Gravity</i> , 1999, 16, 1163-1173.	4.0	10
30	Factors for conversion between human and automatic read-outs of CDMAM images. <i>Medical Physics</i> , 2011, 38, 5090-5093.	3.0	10
31	<title>Calibration of projection parameters in the varioscope AR, a head-mounted display for augmented-reality visualization in image-guided therapy</title>. , 2001, , .		9
32	Diagnostic Reference Levels for computed tomography in Austria: A 2018 nationwide survey on adult patients. <i>European Journal of Radiology</i> , 2020, 125, 108863.	2.6	9
33	In vitro imaging of coronary artery stents: Are there differences between 16- and 64-slice CT scanners?. <i>European Journal of Radiology</i> , 2008, 68, 465-470.	2.6	8
34	A quantitative comparison of data evaluation methods to derive diagnostic reference levels for CT from a dosimetric survey: Correlation analysis compared to simple evaluation strategies. <i>Physica Medica</i> , 2013, 29, 470-477.	0.7	8
35	Quantum gravity and spin systems. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 1995, 42, 710-712.	0.4	7
36	Comparison of a personalized breast dosimetry method with standard dosimetry protocols. <i>Scientific Reports</i> , 2019, 9, 5866.	3.3	7

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37	Corneal Lathing Using the Excimer Laser and a Computer-controlled Positioning System. Journal of Refractive Surgery, 2000, 16, 23-31.	2.3	7
38	Matrix effects of secondary neutrals: Laser postionization investigations of particles sputtered from clean and oxidized metals. Physical Review B, 1995, 51, 4665-4667.	3.2	6
39	Correlation functions in lattice formulations of quantum gravity. Nuclear Physics, Section B, Proceedings Supplements, 1997, 53, 735-738.	0.4	6
40	On the dose sensitivity of a new CDMAM phantom. Physics in Medicine and Biology, 2015, 60, N177-N185.	3.0	6
41	The phase structure of pure Regge gravity. Nuclear Physics, Section B, Proceedings Supplements, 1996, 47, 625-628.	0.4	5
42	Laser shaping of corneal transplants in vitro: area ablation with small overlapping laser spots produced by a pulsed scanning laser beam using an optimizing ablation algorithm. Physics in Medicine and Biology, 1999, 44, 1169-1180.	3.0	5
43	High-resolution CT of transplanted teeth: imaging technique and measurement accuracy. European Radiology, 2008, 18, 2975-2980.	4.5	5
44	Feasibility of Dose Reduction Using Needle-Structured Image Plates Versus Powder-Structured Plates for Computed Radiography of the Knee. American Journal of Roentgenology, 2011, 197, W318-W323.	2.2	5
45	Equivalent thicknesses of beam hardening filters consisting of aluminium, copper, Al/Cu and Al/Gold combinations and plumbiferous acrylic for 40 to 150 kVp diagnostic spectra. Journal of Radiological Protection, 2018, 38, 1269-1283.	1.1	5
46	Current status of the Varioscope AR, a head-mounted operating microscope for computer-aided surgery. , 0, , .		4
47	Conversion factors between human and automatic readouts of CDMAM phantom images of CR mammography systems. Physics in Medicine and Biology, 2016, 61, N514-N521.	3.0	4
48	Performance of semiconductor dosimeters with a range of radiation qualities used for mammography: A calibration laboratory study. Medical Physics, 2020, 47, 1372-1378.	3.0	4
49	Developing and Implementing an Imaging Optimization Study in Pediatric Nuclear Medicine: Experience and Recommendations from an IAEA-Coordinated Research Project. Journal of Nuclear Medicine, 2021, 62, 570-576.	5.0	4
50	Automated tube voltage selection in pediatric non-contrast chest CT. PLoS ONE, 2018, 13, e0204794.	2.5	3
51	A Protocol for Quality Control Testing for Contrast-Enhanced Dual Energy Mammography Systems. Lecture Notes in Computer Science, 2014, , 407-414.	1.3	3
52	A spin approach to four dimensional quantum gravity. Nuclear Physics, Section B, Proceedings Supplements, 1997, 53, 769-772.	0.4	2
53	Dose and image quality measurements for contrast-enhanced dual energy mammography systems. , 2015, , .		2
54	Developing and implementing a multi-modality imaging optimization study in paediatric radiology: Experience and recommendations from an IAEA coordinated research project. Physica Medica, 2021, 82, 255-265.	0.7	2

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55	Factors for conversion between human and automatic read-outs of CDMAM images. Proceedings of SPIE, 2011, , .	0.8	1
56	Spectrum optimization for computed radiography mammography systems. Physica Medica, 2016, 32, 1034-1039.	0.7	1
57	HERSTELLUNG VON HOCHPRÄZISEN HORNHAUTTRANSPLANTATEN MIT DEM EXCIMER LASER. Biomedizinische Technik, 1998, 43, 189-191.	0.8	0
58	Development and clinical application of excimer laser corneal shaping. , 1998, 3246, 144.		0
59	IMAGE QUALITY AND STABILITY OF IMAGE GUIDED RADIOTHERAPY (IGRT) DEVICES: AN INTERCOMPARISON STUDY. Radiotherapy and Oncology, 2009, 92, S130.	0.6	0
60	Dose sensitivity of three methods of image quality assessment in digital mammography. Proceedings of SPIE, 2012, , .	0.8	0
61	Musculoskeletal imaging with a prototype photon-counting detector. European Radiology, 2012, 22, 205-210.	4.5	0
62	Spectrum optimization for computed radiography systems. , 2014, , .		0
63	New conversion factors between human and automatic readouts of the CDMAM phantom for CR systems. , 2016, , .		0