

# Uwe K Pietrzyk

## List of Publications by Citations

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95  
papers

6,397  
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37  
h-index

79  
g-index

104  
ext. papers

7,351  
ext. citations

4.4  
avg, IF

4.66  
L-index

#	Paper	IF	Citations
95	GATE: a simulation toolkit for PET and SPECT. <i>Physics in Medicine and Biology</i> , <b>2004</b> , 49, 4543-61	3.8	1239
94	GATE V6: a major enhancement of the GATE simulation platform enabling modelling of CT and radiotherapy. <i>Physics in Medicine and Biology</i> , <b>2011</b> , 56, 881-901	3.8	488
93	Multiple nonprimary motor areas in the human cortex. <i>Journal of Neurophysiology</i> , <b>1997</b> , 77, 2164-74	3.2	421
92	The ECAT EXACT HR. <i>Journal of Computer Assisted Tomography</i> , <b>1994</b> , 18, 110-118	2.2	405
91	Progressive derangement of periinfarct viable tissue in ischemic stroke. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1992</b> , 12, 193-203	7.3	369
90	A review of the use and potential of the GATE Monte Carlo simulation code for radiation therapy and dosimetry applications. <i>Medical Physics</i> , <b>2014</b> , 41, 064301	4.4	219
89	Individual functional anatomy of verb generation. <i>NeuroImage</i> , <b>1996</b> , 3, 185-94	7.9	197
88	A novel approach to the human connectome: ultra-high resolution mapping of fiber tracts in the brain. <i>NeuroImage</i> , <b>2011</b> , 54, 1091-101	7.9	171
87	Performance evaluation of the positron scanner ECAT EXACT. <i>Journal of Computer Assisted Tomography</i> , <b>1992</b> , 16, 804-13	2.2	166
86	Speech-induced cerebral metabolic activation reflects recovery from aphasia. <i>Journal of the Neurological Sciences</i> , <b>1997</b> , 145, 213-7	3.2	138
85	<sup>2</sup> [F]-fluoro-2-deoxy-D-glucose positron emission tomography is a sensitive tool for the detection of occult primary cancer (carcinoma of unknown primary syndrome) with head and neck lymph node manifestation. <i>Otolaryngology - Head and Neck Surgery</i> , <b>2000</b> , 123, 294-301	5.5	118
84	Qualitative [ <sup>18</sup> F]FDG positron emission tomography in primary breast cancer: clinical relevance and practicability. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , <b>1996</b> , 23, 618-23		118
83	High-resolution fiber tract reconstruction in the human brain by means of three-dimensional polarized light imaging. <i>Frontiers in Neuroinformatics</i> , <b>2011</b> , 5, 34	3.9	110
82	Correlation of glucose consumption and tumor cell density in astrocytomas. A stereotactic PET study. <i>Journal of Neurosurgery</i> , <b>1993</b> , 79, 853-8	3.2	109
81	Regional cerebral blood flow in patients with leuko-araiosis and atherosclerotic carotid artery disease. <i>Archives of Neurology</i> , <b>1990</b> , 47, 392-6		95
80	MR-based attenuation correction for torso-PET/MR imaging: pitfalls in mapping MR to CT data. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , <b>2008</b> , 35, 1142-6	8.8	91
79	Localization of language-related cortex with <sup>15</sup> O-labeled water PET in patients with gliomas. <i>NeuroImage</i> , <b>1998</b> , 7, 284-95	7.9	90

78	HMPAO SPET and FDG PET in Alzheimer's disease and vascular dementia: comparison of perfusion and metabolic pattern. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , <b>1994</b> , 21, 1052-60		89
77	Functional effects of striatal dysfunction in Parkinson disease. <i>Archives of Neurology</i> , <b>1997</b> , 54, 145-50		87
76	A functional magnetic resonance imaging study of local/global processing with stimulus presentation in the peripheral visual hemifields. <i>Neuroscience</i> , <b>2004</b> , 124, 113-20	3.9	81
75	A positron emission tomography study of oculomotor imagery. <i>NeuroReport</i> , <b>1994</b> , 5, 921-4	1.7	80
74	Glucose consumption and methionine uptake in low-grade gliomas after iodine-125 brachytherapy. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , <b>1996</b> , 23, 583-6		75
73	<sup>11</sup> C-methionine and <sup>18</sup> F-2-fluorodeoxyglucose positron emission tomography: a tool for diagnosis of cerebral glioma and monitoring after brachytherapy with <sup>125</sup> I seeds. <i>Stereotactic and Functional Neurosurgery</i> , <b>1997</b> , 69, 129-35	1.6	73
72	Integration of amplitude and phase statistics for complete artifact removal in independent components of neuromagnetic recordings. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2008</b> , 55, 2353-62	5	68
71	Postictal psychosis in temporal lobe epilepsy. <i>Epilepsia</i> , <b>2003</b> , 44, 582-90	6.4	62
70	Linking retinotopic fMRI mapping and anatomical probability maps of human occipital areas V1 and V2. <i>NeuroImage</i> , <b>2005</b> , 26, 73-82	7.9	58
69	Clinical applications of registration and fusion of multimodality brain images from PET, SPECT, CT, and MRI. <i>European Journal of Radiology</i> , <b>1996</b> , 21, 174-82	4.7	57
68	Flow visualization in porous media via Positron Emission Tomography. <i>Physics of Fluids</i> , <b>1998</b> , 10, 1031-1033	1.3	53
67	Functional neuroanatomy of the human visual fixation system. <i>European Journal of Neuroscience</i> , <b>1995</b> , 7, 169-74	3.5	52
66	Integration of FDG-PET/CT into external beam radiation therapy planning: technical aspects and recommendations on methodological approaches. <i>Nuklearmedizin - Nuclear Medicine</i> , <b>2012</b> , 51, 140-53	1.8	45
65	Enhanced Accuracy in Differential Diagnosis of Radiation Necrosis by Positron Emission Tomography-Magnetic Resonance Imaging Coregistration: Technical Case Report. <i>Neurosurgery</i> , <b>2000</b> , 46, 232-234	3.2	44
64	NEMA NU2-2001 guided performance evaluation of four Siemens ECAT PET scanners. <i>IEEE Transactions on Nuclear Science</i> , <b>2004</b> , 51, 2662-2669	1.7	43
63	Planum temporale and Brodmann's area 22. Magnetic resonance imaging and high-resolution positron emission tomography demonstrate functional left-right asymmetry. <i>Archives of Neurology</i> , <b>1995</b> , 52, 869-74		43
62	Motion artifact reduction on parametric PET images of neuroreceptor binding. <i>Journal of Nuclear Medicine</i> , <b>2005</b> , 46, 1059-65	8.9	40
61	Individual metabolic anatomy of repeating words demonstrated by MRI-guided positron emission tomography. <i>Neuroscience Letters</i> , <b>1994</b> , 182, 47-50	3.3	39

60	Uptake of 18F-FLT and 18F-FDG in primary head and neck cancer correlates with survival. <i>Nuklearmedizin - NuclearMedicine</i> , <b>2008</b> , 47, 80-85	1.8	38
59	On the use of positioning aids to reduce misregistration in the head and neck in whole-body PET/CT studies. <i>Journal of Nuclear Medicine</i> , <b>2005</b> , 46, 596-602	8.9	37
58	Comparison of [99mTc]HMPAO SPECT with [18F]fluoromethane PET in cerebrovascular disease. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1990</b> , 10, 687-97	7.3	36
57	Understanding fiber mixture by simulation in 3D Polarized Light Imaging. <i>NeuroImage</i> , <b>2015</b> , 111, 464-75	7.9	35
56	Towards ultra-high resolution fibre tract mapping of the human brain - registration of polarised light images and reorientation of fibre vectors. <i>Frontiers in Human Neuroscience</i> , <b>2010</b> , 4, 9	3.3	31
55	Signal enhancement in polarized light imaging by means of independent component analysis. <i>NeuroImage</i> , <b>2010</b> , 49, 1241-8	7.9	29
54	The ClearPET project. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2004</b> , 527, 171-174	1.2	29
53	A multiscale approach for the reconstruction of the fiber architecture of the human brain based on 3D-PLI. <i>Frontiers in Neuroanatomy</i> , <b>2015</b> , 9, 118	3.6	27
52	Processing the spatial configuration of complex actions involves right posterior parietal cortex: An fMRI study with clinical implications. <i>Human Brain Mapping</i> , <b>2006</b> , 27, 1004-14	5.9	27
51	Design optimization of the PMT-ClearPET prototypes based on simulation studies with GEANT3. <i>IEEE Transactions on Nuclear Science</i> , <b>2003</b> , 50, 1428-1432	1.7	25
50	Interictal hippocampal benzodiazepine receptors in temporal lobe epilepsy: comparison with coregistered hippocampal metabolism and volumetry. <i>European Journal of Neurology</i> , <b>2000</b> , 7, 393-400	6	22
49	Enhanced Accuracy in Differential Diagnosis of Radiation Necrosis by Positron Emission Tomography-Magnetic Resonance Imaging Coregistration: Technical Case Report. <i>Neurosurgery</i> , <b>2000</b> , 232-234	3.2	22
48	Model-based verification of a non-linear separation scheme for ballistocardiography. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2014</b> , 18, 174-82	7.2	20
47	Relation between 1H MR spectroscopic imaging and regional cerebral glucose metabolism in Alzheimer's disease. <i>International Journal of Neuroscience</i> , <b>2001</b> , 107, 233-45	2	19
46	Regional cerebral blood flow during temporal lobe seizures associated with ictal vomiting: an ictal SPECT study in two patients. <i>Epilepsia</i> , <b>1999</b> , 40, 1085-91	6.4	18
45	Regional cerebral blood flow measurement with intravenous [15O]water bolus and [18F]fluoromethane inhalation. <i>Stroke</i> , <b>1989</b> , 20, 1174-81	6.7	17
44	Whole-body PET/CT imaging: combining software- and hardware-based co-registration. <i>Zeitschrift Fur Medizinische Physik</i> , <b>2008</b> , 18, 59-66	7.6	16
43	Automatic identification of gray and white matter components in polarized light imaging. <i>NeuroImage</i> , <b>2012</b> , 59, 1338-47	7.9	15

42	Use of 201Thallium brain SPECT, image registration, and semi-quantitative analysis in the follow-up of brain tumors. <i>European Journal of Radiology</i> , <b>1996</b> , 21, 188-95	4.7	15
41	Regional cerebral blood flow and metabolism in Sturge-Weber disease. <i>Clinical Nuclear Medicine</i> , <b>1995</b> , 20, 522-3	1.7	15
40	Prediction of Alzheimer's Dementia in Patients with Amnesic Mild Cognitive Impairment in Clinical Routine: Incremental Value of Biomarkers of Neurodegeneration and Brain Amyloidosis Added Stepwise to Cognitive Status. <i>Journal of Alzheimer's Disease</i> , <b>2018</b> , 61, 373-388	4.3	14
39	Estimation of regional cerebral blood flow levels in ischemia using [(15)O]water of [(11)C]flumazenil PET without arterial input function. <i>Journal of Computer Assisted Tomography</i> , <b>2001</b> , 25, 446-51	2.2	14
38	Monte Carlo simulations of GeoPET experiments: 3D images of tracer distributions (18F, 124I and 58Co) in Opalinus clay, anhydrite and quartz. <i>Computers and Geosciences</i> , <b>2013</b> , 57, 183-196	4.5	13
37	Quantifying the A1AR distribution in peritumoural zones around experimental F98 and C6 rat brain tumours. <i>Journal of Neuro-Oncology</i> , <b>2007</b> , 85, 49-63	4.8	13
36	Concepts of registration and correction of head motion in positron emission tomography. <i>Zeitschrift Fur Medizinische Physik</i> , <b>2006</b> , 16, 67-74	7.6	12
35	Peri-Infarct perfusion in human ischemia: Its relation to tissue metabolism, morphology, and clinical outcome. <i>Journal of Stroke and Cerebrovascular Diseases</i> , <b>1993</b> , 3, 123-31	2.8	11
34	Measurement of blood-brain hexose transport with dynamic PET: comparison of [18F]2-fluoro-2-deoxyglucose and [11C]O-methylglucose. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1989</b> , 9, 104-10	7.3	10
33	Evaluation of registration strategies for multi-modality images of rat brain slices. <i>Physics in Medicine and Biology</i> , <b>2009</b> , 54, 3269-89	3.8	9
32	Advanced Monte Carlo simulations of emission tomography imaging systems with GATE. <i>Physics in Medicine and Biology</i> , <b>2021</b> , 66,	3.8	9
31	Diaschisis of specific cerebellar lobules: pontine haematoma studied with high-resolution PET and MRI. <i>Journal of Neurology</i> , <b>1996</b> , 243, 131-6	5.5	7
30	PET attenuation correction for rigid MR Tx/Rx coils from Lu background activity. <i>Physics in Medicine and Biology</i> , <b>2018</b> , 63, 035039	3.8	6
29	EduGATE - basic examples for educative purpose using the GATE simulation platform. <i>Zeitschrift Fur Medizinische Physik</i> , <b>2013</b> , 23, 65-70	7.6	6
28	Mental speed is associated with the shape irregularity of white matter MRI hyperintensity load. <i>Brain Imaging and Behavior</i> , <b>2017</b> , 11, 1720-1730	4.1	5
27	GPU-accelerated Monte Carlo based scatter correction in brain PET/MR. <i>EJNMMI Physics</i> , <b>2014</b> , 1, A32	4.4	5
26	Does PET/MR in human brain imaging provide optimal co-registration? A critical reflection. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2013</b> , 26, 137-47	2.8	5
25	Spatial transformation during 3D reconstruction in positron emission tomography. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , <b>1997</b> , 24, 1413-7	8.8	5

24	Detection of unknown primary cancer with fluor-deoxy-glucose positron emission tomography. <i>Annals of Otology, Rhinology and Laryngology</i> , <b>1999</b> , 108, 623-6	2.1	5
23	GATE based Monte Carlo simulation of planar scintigraphy to estimate the nodular dose in radioiodine therapy for autonomous thyroid adenoma. <i>Zeitschrift Fur Medizinische Physik</i> , <b>2011</b> , 21, 290-300	7.6	4
22	Classification of ambiguous nerve fiber orientations in 3D polarized light imaging. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 15, 206-13	0.9	4
21	High-resolution, quantitative 3D PET image reconstruction for the Siemens hybrid 3T MR/BrainPET scanner using the PET reconstruction software toolkit (PRESTO). <i>EJNMMI Physics</i> , <b>2014</b> , 1, A51	4.4	3
20	Extracting the inclination angle of nerve fibers within the human brain with 3D-PLI independent of system properties <b>2013</b> ,		3
19	Nerve fiber mapping of the human visual cortex using Polarized Light Imaging (PLI) <b>2007</b> ,		3
18	Event-by-event motion compensation in 3D PET		3
17	Registration of MRI and PET Images for Clinical Applications. <i>Biomedical Engineering Series</i> , <b>2001</b> , 199-216		3
16	Polarized light imaging of the human brain: a new approach to the data analysis of tilted sections <b>2014</b> ,		2
15	Simulation studies of optical photons in monolithic block scintillators <b>2011</b> ,		2
14	Using Monte-Carlo simulations to implement corrections for I-124 as a non-pure positron emitter in small animal and human PET imaging <b>2011</b> ,		2
13	Fusion of rat brain histology and MRI using weighted multi-image mutual information <b>2008</b> ,		2
12	Functional and morphological imaging of small striato-capsular infarction by CT, MRI and multitracer PET. <i>Neurological Research</i> , <b>1992</b> , 14, 139-42	2.7	2
11	Visualization of Vector Fields Derived from 3D Polarized Light Imaging. <i>Informatik Aktuell</i> , <b>2016</b> , 176-181	6.3	2
10	3D Polarized Light Imaging Portrayed: Visualization of Fiber Architecture Derived from 3D-PLI <b>2018</b> ,		2
9	FIRST RESULTS WITH THE CLEARPET SMALL ANIMAL PET SCANNERS <b>2006</b> , 149-164		2
8	Virtual scanner geometry for iterative 3D PET reconstruction adaptable to complex and irregular scanner topologies <b>2007</b> ,		1
7	Parallel List-Mode Reconstruction and Calculation of the System Matrix for the High-Resolution ClearPET Neuro <b>2006</b> ,		1

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|---|--|-----|
| 6 | Motion correction of head movements in PET: realisation for routine usage  | 1   |
| 5 | Noise Characteristic of 3D PET Scans from Single Subject Activation Studies <b>2001</b> , 281-287  | 1   |
| 4 | Evaluierung von Registrierungsstrategien zur multimodalen 3D-Rekonstruktion von Rattenhirnschnitten 251-255  |     |
| 3 | Korrektur der Kopfbewegung während einer PET-Untersuchung – ein spezielles Problem der Bildregistrierung. <i>Informatik Aktuell</i> , <b>2004</b> , 299-303                        | 0.3 |
| 2 | Motion correction eliminates discontinuities in parametric PET images of neuroreceptor binding. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2005</b> , 25, S622-S622 | 7.3 |
| 1 | Bildregistrierung und -überlagerung: Eine Hybridlösung aus interaktiven und automatisierten Verfahren. <i>Informatik Aktuell</i> , <b>1998</b> , 39-43                             | 0.3 |