

# Stefaan Vandenberghe

## List of Publications by Year in descending order

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56  
papers

1,226  
citations

471061

17  
h-index

377514

34  
g-index

56  
all docs

56  
docs citations

56  
times ranked

1390  
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance evaluation of a micro-CT system for laboratory animal imaging with iterative reconstruction capabilities. <i>Medical Physics</i> , 2022, 49, 3121-3133.	1.6	2
2	Progress and perspectives in total body PET systems instrumentation. <i>Bio-Algorithms and Med-Systems</i> , 2022, 17, 265-267.	1.0	8
3	Artificial neural networks for positioning of gamma interactions in monolithic PET detectors. <i>Physics in Medicine and Biology</i> , 2021, 66, 075001.	1.6	18
4	Advanced Monte Carlo simulations of emission tomography imaging systems with GATE. <i>Physics in Medicine and Biology</i> , 2021, 66, 10TR03.	1.6	82
5	Guide to Plant-PET Imaging Using <sup>11</sup> CO <sub>2</sub> . <i>Frontiers in Plant Science</i> , 2021, 12, 602550.	1.7	15
6	High-resolution monolithic LYSO detector with 6-layer depth-of-interaction for clinical PET. <i>Physics in Medicine and Biology</i> , 2021, 66, 155014.	1.6	17
7	Artificial intelligence with deep learning in nuclear medicine and radiology. <i>EJNMMI Physics</i> , 2021, 8, 81.	1.3	26
8	Simulation study on the performance of time-over-threshold based positioning in monolithic PET detectors. <i>Physics in Medicine and Biology</i> , 2021, 66, 245025.	1.6	1
9	Standardization of Preclinical PET/CT Imaging to Improve Quantitative Accuracy, Precision, and Reproducibility: A Multicenter Study. <i>Journal of Nuclear Medicine</i> , 2020, 61, 461-468.	2.8	23
10	Monte Carlo Simulations of the GE Signa PET/MR for Different Radioisotopes. <i>Frontiers in Physiology</i> , 2020, 11, 525575.	1.3	7
11	State of the art in total body PET. <i>EJNMMI Physics</i> , 2020, 7, 35.	1.3	196
12	Studying in vivo dynamics of xylem-transported <sup>11</sup> CO <sub>2</sub> using positron emission tomography. <i>Tree Physiology</i> , 2020, 40, 1058-1070.	1.4	7
13	Roadmap toward the 10 ps time-of-flight PET challenge. <i>Physics in Medicine and Biology</i> , 2020, 65, 21RM01.	1.6	136
14	<sup>18</sup> F-FDG micro-PET/CT for intra-operative margin assessment during breast-conserving surgery. <i>Acta Chirurgica Belgica</i> , 2020, 120, 366-374.	0.2	11
15	Mitigating the Adverse Effect of Compton Scatter on the Positioning of Gamma Interactions in Large Monolithic PET Detectors. , 2020, , .		0
16	Optical simulation study on the spatial resolution of a thick monolithic PET detector. <i>Physics in Medicine and Biology</i> , 2019, 64, 195003.	1.6	20
17	Plant-PET to investigate phloem vulnerability to drought in <i>Populus tremula</i> under changing climate regimes. <i>Tree Physiology</i> , 2019, 39, 211-221.	1.4	17
18	A dosimetry procedure for organs-at-risk in <sup>177</sup> Lu peptide receptor radionuclide therapy of patients with neuroendocrine tumours. <i>Physica Medica</i> , 2018, 56, 41-49.	0.4	32

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19	EEG source connectivity to localize the seizure onset zone in patients with drug resistant epilepsy. <i>NeuroImage: Clinical</i> , 2017, 16, 689-698.	1.4	50
20	Accuracy and precision assessment for activity quantification in individualized dosimetry of <sup>177</sup> Lu-DOTATATE therapy. <i>EJNMMI Physics</i> , 2017, 4, 7.	1.3	18
21	Seizure Onset Zone Localization from Ictal High-Density EEG in Refractory Focal Epilepsy. <i>Brain Topography</i> , 2017, 30, 257-271.	0.8	50
22	Comparison of Partial Volume Correction Techniques for Lesions Near High Activity Regions. , 2017, , .		2
23	Electrical source imaging of interictal spikes using multiple sparse volumetric priors for presurgical epileptogenic focus localization. <i>NeuroImage: Clinical</i> , 2016, 11, 252-263.	1.4	16
24	Sub-millimetre DOI detector based on monolithic LYSO and digital SiPM for a dedicated small-animal PET system. <i>Physics in Medicine and Biology</i> , 2016, 61, 2196-2212.	1.6	57
25	Geometric optimization of an ultralow-dose high-resolution pediatric PET scanner based on monolithic scintillators with dSiPM readout. <i>EJNMMI Physics</i> , 2015, 2, A23.	1.3	0
26	Simultaneous reconstruction of attenuation and activity in ToF PET/MRI with additional transmission data. <i>EJNMMI Physics</i> , 2015, 2, A33.	1.3	2
27	Bayesian model selection of template forward models for EEG source reconstruction. <i>NeuroImage</i> , 2014, 93, 11-22.	2.1	21
28	DigiPET: sub-millimeter spatial resolution small-animal PET imaging using thin monolithic scintillators. <i>Physics in Medicine and Biology</i> , 2014, 59, 3405-3420.	1.6	93
29	Multiple sparse volumetric priors for distributed EEG source reconstruction. <i>NeuroImage</i> , 2014, 100, 715-724.	2.1	6
30	Use of a Ray-Based Reconstruction Algorithm to Accurately Quantify Preclinical MicroSPECT Images. <i>Molecular Imaging</i> , 2014, 13, 7290.2014.00007.	0.7	10
31	Effect of Local TOF Kernel Miscalibrations on Contrast-Noise in TOF PET. <i>IEEE Transactions on Nuclear Science</i> , 2013, 60, 1578-1588.	1.2	3
32	Evaluation of the local shift-invariance approximation in pinhole SPECT. , 2013, , .		1
33	Data completeness in multiplexing multi-pinhole SPECT. , 2013, , .		0
34	Iterative CT Reconstruction Using Shearlet-Based Regularization. <i>IEEE Transactions on Nuclear Science</i> , 2013, 60, 3305-3317.	1.2	55
35	Fast calibration of SPECT monolithic scintillation detectors using un-collimated sources. <i>Physics in Medicine and Biology</i> , 2013, 58, 4807-4825.	1.6	14
36	FlexiSPECT: A SPECT System Consisting of a Compact High-Resolution Scintillation Detector (SPECTatress) and a Lofthole Collimator. <i>IEEE Transactions on Nuclear Science</i> , 2013, 60, 53-64.	1.2	8

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37	Influence of detector pixel size, TOF resolution and DOI on image quality in MR-compatible whole-body PET. <i>Physics in Medicine and Biology</i> , 2013, 58, 6459-6479.	1.6	28
38	Effects of dark counts on Digital Silicon Photomultipliers performance. , 2013, , .		7
39	Dual energy microCT for small animal bone-iodine decomposition. , 2012, , .		3
40	Time-multiplexing using a static full-ring multi-pinhole collimator for brain SPECT. , 2012, , .		0
41	Efficient optimization for adaptive SPECT systems based on local shift-invariance. , 2012, , .		3
42	Experimental evaluation of simultaneous emission and transmission imaging using TOF information. , 2011, , .		5
43	Design of a realistic PET-CT-MRI phantom. , 2011, , .		8
44	The lofthole: A novel shaped pinhole geometry for optimal detector usage without multiplexing and without additional shielding. , 2011, , .		6
45	Absolute quantification for small-animal PET. , 2011, , .		1
46	Design of a high resolution scintillator based SPECT detector (SPECTatress). <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 648, S107-S110.	0.7	12
47	Evaluation of image Signal-to-Noise Ratio in Time-of-Flight PET. , 2011, , .		2
48	Design of a static full-ring multi-pinhole collimator for brain SPECT. , 2011, , .		3
49	A high resolution scintillator based SPECT detector with digital pulse processing (SPECTatress). , 2010, , .		2
50	Optimization of time-of-flight reconstruction on Philips GEMINI TF. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2009, 36, 1994-2001.	3.3	13
51	Simulation of complex geometries in GATE. , 2009, , .		2
52	Comparison of 3D SPECT imaging with a rotating slat collimator and a parallel hole collimator. , 2008, , .		2
53	Acceleration of GATE SPECT simulations. , 2007, , .		0
54	Reconstruction for Gated Dynamic Cardiac PET Imaging Using a Tensor Product Spline Basis. <i>IEEE Transactions on Nuclear Science</i> , 2007, 54, 80-91.	1.2	17

#	ARTICLE	IF	CITATIONS
55	System characteristics of simulated limited angle TOF PET. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 571, 480-483.	0.7	12
56	Fast reconstruction of 3D time-of-flight PET data by axial rebinning and transverse mashing. Physics in Medicine and Biology, 2006, 51, 1603-1621.	1.6	76