

# Kris Thielemans

## List of Publications by Year in descending order

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150  
papers

3,657  
citations

172207

29  
h-index

149479

56  
g-index

152  
all docs

152  
docs citations

152  
times ranked

4374  
citing authors

#	ARTICLE	IF	CITATIONS
1	STIR: software for tomographic image reconstruction release 2. <i>Physics in Medicine and Biology</i> , 2012, 57, 867-883.	1.6	375
2	Cognitive deficits and striato-frontal dopamine release in Parkinson's disease. <i>Brain</i> , 2008, 131, 1294-1302.	3.7	247
3	Interleukin-10 prevents the generation of dendritic cells from human peripheral blood mononuclear cells cultured with interleukin-4 and granulocyte/ macrophage-colony-stimulating factor. <i>European Journal of Immunology</i> , 1997, 27, 756-762.	1.6	223
4	Human dendritic cell responses to lipopolysaccharide and CD40 ligation are differentially regulated by interleukin-10. <i>European Journal of Immunology</i> , 1997, 27, 1848-1852.	1.6	187
5	Messenger RNA-Electroporated Dendritic Cells Presenting MAGE-A3 Simultaneously in HLA Class I and Class II Molecules. <i>Journal of Immunology</i> , 2004, 172, 6649-6657.	0.4	182
6	PETPVC: a toolbox for performing partial volume correction techniques in positron emission tomography. <i>Physics in Medicine and Biology</i> , 2016, 61, 7975-7993.	1.6	117
7	Joint reconstruction of PET-MRI by exploiting structural similarity. <i>Inverse Problems</i> , 2015, 31, 015001.	1.0	106
8	A randomised, placebo-controlled study of omipalisib (PI3K/mTOR) in idiopathic pulmonary fibrosis. <i>European Respiratory Journal</i> , 2019, 53, 1801992.	3.1	101
9	Quiescent period respiratory gating for PET/CT. <i>Medical Physics</i> , 2010, 37, 5037-5043.	1.6	94
10	Study of direct and indirect parametric estimation methods of linear models in dynamic positron emission tomography. <i>Medical Physics</i> , 2008, 35, 1299-1309.	1.6	91
11	PET Reconstruction With an Anatomical MRI Prior Using Parallel Level Sets. <i>IEEE Transactions on Medical Imaging</i> , 2016, 35, 2189-2199.	5.4	82
12	A survey of approaches for direct parametric image reconstruction in emission tomography. <i>Medical Physics</i> , 2008, 35, 3963-3971.	1.6	80
13	Device-less gating for PET/CT using PCA. , 2011, , ,		80
14	Axitinib increases the infiltration of immune cells and reduces the suppressive capacity of monocytic MDSCs in an intracranial mouse melanoma model. <i>Oncolmmunology</i> , 2015, 4, e998107.	2.1	65
15	Multiple myeloma induces Mcl-1 expression and survival of myeloid-derived suppressor cells. <i>Oncotarget</i> , 2015, 6, 10532-10547.	0.8	64
16	Location, location, location: functional and phenotypic heterogeneity between tumor-infiltrating and non-infiltrating myeloid-derived suppressor cells. <i>Oncolmmunology</i> , 2014, 3, e956579.	2.1	60
17	Pulmonary 18F-FDG uptake helps refine current risk stratification in idiopathic pulmonary fibrosis (IPF). <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2018, 45, 806-815.	3.3	60
18	Properties and Mitigation of Edge Artifacts in PSF-Based PET Reconstruction. <i>IEEE Transactions on Nuclear Science</i> , 2011, 58, 2264-2275.	1.2	59

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19	Targeting the tumor microenvironment to enhance antitumor immune responses. <i>Oncotarget</i> , 2015, 6, 1359-1381.	0.8	59
20	Quantification of Lung PET Images: Challenges and Opportunities. <i>Journal of Nuclear Medicine</i> , 2017, 58, 201-207.	2.8	55
21	STIR: Software for Tomographic Image Reconstruction Release 2. , 2006, , .		53
22	Advances in clinical molecular imaging instrumentation. <i>Clinical and Translational Imaging</i> , 2018, 6, 31-45.	1.1	53
23	Improved correction for the tissue fraction effect in lung PET/CT imaging. <i>Physics in Medicine and Biology</i> , 2015, 60, 7387-7402.	1.6	48
24	IL-12 prevents neonatal induction of transplantation tolerance in mice. <i>European Journal of Immunology</i> , 1998, 28, 1426-1430.	1.6	45
25	Maximum-Likelihood Joint Image Reconstruction/Motion Estimation in Attenuation-Corrected Respiratory Gated PET/CT Using a Single Attenuation Map. <i>IEEE Transactions on Medical Imaging</i> , 2016, 35, 217-228.	5.4	41
26	Long-Peptide Cross-Presentation by Human Dendritic Cells Occurs in Vacuoles by Peptide Exchange on Nascent MHC Class I Molecules. <i>Journal of Immunology</i> , 2016, 196, 1711-1720.	0.4	40
27	Comparative evaluation of scatter correction in 3D PET using different scatter-level approximations. <i>Annals of Nuclear Medicine</i> , 2011, 25, 643-649.	1.2	39
28	CD40 engagement induces monocyte procoagulant activity through an interleukin-10 resistant pathway. <i>European Journal of Immunology</i> , 1996, 26, 3048-3054.	1.6	36
29	Hybrid PET-MR list-mode kernelized expectation maximization reconstruction. <i>Inverse Problems</i> , 2019, 35, 044001.	1.0	36
30	Multi-contrast attenuation map synthesis for PET/MR scanners: assessment on FDG and Florbetapir PET tracers. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2015, 42, 1447-1458.	3.3	35
31	SIRF: Synergistic Image Reconstruction Framework. <i>Computer Physics Communications</i> , 2020, 249, 107087.	3.0	35
32	Implementation and validation of time-of-flight PET image reconstruction module for listmode and sinogram projection data in the STIR library. <i>Physics in Medicine and Biology</i> , 2019, 64, 035004.	1.6	30
33	Joint PET-MR respiratory motion models for clinical PET motion correction. <i>Physics in Medicine and Biology</i> , 2016, 61, 6515-6530.	1.6	27
34	The effect of respiratory induced density variations on non-TOF PET quantitation in the lung. <i>Physics in Medicine and Biology</i> , 2016, 61, 3148-3163.	1.6	25
35	Direct Parametric Reconstruction With Joint Motion Estimation/Correction for Dynamic Brain PET Data. <i>IEEE Transactions on Medical Imaging</i> , 2017, 36, 203-213.	5.4	25
36	Sign determination methods for the respiratory signal in data-driven PET gating. <i>Physics in Medicine and Biology</i> , 2017, 62, 3204-3220.	1.6	22

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37	Thermoelectric Performance of $\text{Si}_{0.8}\text{Ge}_{0.2}$ Nanowire Arrays. IEEE Transactions on Electron Devices, 2012, 59, 3193-3198.	1.6	21
38	The Vacuolar Pathway of Long Peptide Cross-Presentation Can Be TAP Dependent. Journal of Immunology, 2019, 202, 451-459.	0.4	19
39	Non-invasive kinetic modelling of PET tracers with radiometabolites using a constrained simultaneous estimation method: evaluation with $^{11}\text{C}$ -SB201745. EJNMMI Research, 2018, 8, 58.	1.1	17
40	The tumor-associated antigen RHAMM (HMMR/CD168) is expressed by monocyte-derived dendritic cells and presented to T cells. Oncotarget, 2016, 7, 73960-73970.	0.8	17
41	AZD1480 delays tumor growth in a melanoma model while enhancing the suppressive activity of myeloid-derived suppressor cells. Oncotarget, 2014, 5, 6801-6815.	0.8	17
42	On the Casimir algebra of B2. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1991, 263, 378-384.	1.5	16
43	Autoimmune Lymphoproliferative Syndrome Type III: An Indefinite Disorder. Leukemia and Lymphoma, 2001, 41, 55-65.	0.6	16
44	Theoretical Comparison of Motion Correction Techniques for PET Image Reconstruction. , 2006, , .		16
45	Normalisation of Histogrammed List Mode Data. IEEE Transactions on Nuclear Science, 2008, 55, 543-551.	1.2	16
46	Clinical Impact of Respiratory Motion Correction in Simultaneous PET/MR, Using a Joint PET/MR Predictive Motion Model. Journal of Nuclear Medicine, 2018, 59, 1467-1473.	2.8	16
47	Convergence optimization of parametric MLEM reconstruction for estimation of Patlak plot parameters. Computerized Medical Imaging and Graphics, 2011, 35, 407-416.	3.5	14
48	Maximum-likelihood joint image reconstruction and motion estimation with misaligned attenuation in TOF-PET/CT. Physics in Medicine and Biology, 2016, 61, L11-L19.	1.6	14
49	Fast Quasi-Newton Algorithms for Penalized Reconstruction in Emission Tomography and Further Improvements via Preconditioning. IEEE Transactions on Medical Imaging, 2018, 37, 1000-1010.	5.4	14
50	Issues in quantification of registered respiratory gated PET/CT in the lung. Physics in Medicine and Biology, 2018, 63, 015007.	1.6	14
51	Characterization of Knitted Coils for e-Textiles. IEEE Sensors Journal, 2019, 19, 7835-7840.	2.4	14
52	Induced and effective gravity theories in $D = 2$ . Nuclear Physics B, 1993, 407, 459-512.	0.9	13
53	Object Dependency of Resolution in Reconstruction Algorithms With Iteration Filtering Applied to PET Data. IEEE Transactions on Medical Imaging, 2004, 23, 433-446.	5.4	13
54	Including Anatomical and Functional Information in MC Simulation of PET and SPECT Brain Studies. Brain-Viset: A Voxel-Based Iterative Method. IEEE Transactions on Medical Imaging, 2014, 33, 1931-1938.	5.4	12

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55	Joint Activity and Attenuation Reconstruction From Multiple Energy Window Data With Photopeak Scatter Re-Estimation in Non-TOF 3-D PET. IEEE Transactions on Radiation and Plasma Medical Sciences, 2020, 4, 410-421.	2.7	12
56	Convergence properties of algorithms for direct parametric estimation of linear models in dynamic PET. , 2007, , .		11
57	Evaluation of a direct motion estimation/correction method in respiratory-gated PET/MRI with motion-adjusted attenuation. Medical Physics, 2017, 44, 2379-2390.	1.6	11
58	Effect of positron range on PET quantification in diseased and normal lungs. Physics in Medicine and Biology, 2019, 64, 205010.	1.6	11
59	Event-by-event non-rigid data-driven PET respiratory motion correction methods: comparison of principal component analysis and centroid of distribution. Physics in Medicine and Biology, 2019, 64, 165014.	1.6	11
60	Direct parametric reconstruction from dynamic projection data in emission tomography including prior estimation of the blood volume component. Nuclear Medicine Communications, 2009, 30, 490-493.	0.5	10
61	Evaluation of a New Regularization Prior for 3-D PET Reconstruction Including PSF Modeling. IEEE Transactions on Nuclear Science, 2012, 59, 88-101.	1.2	10
62	Comparison of different methods for data-driven respiratory gating of PET data. , 2013, , .		10
63	Effect of scatter correction when comparing attenuation maps: Application to brain PET/MR. , 2014, , .		10
64	Potential benefits of incorporating energy information when estimating attenuation from PET data. , 2017, , .		10
65	Benefits of Using a Spatially-Variant Penalty Strength With Anatomical Priors in PET Reconstruction. IEEE Transactions on Medical Imaging, 2020, 39, 11-22.	5.4	10
66	Effect of attenuation mismatches in time of flight PET reconstruction. Physics in Medicine and Biology, 2020, 65, 085009.	1.6	10
67	(An overview of) Synergistic reconstruction for multimodality/multichannel imaging methods. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200205.	1.6	10
68	PET respiratory motion correction: quo vadis?. Physics in Medicine and Biology, 2022, 67, 03TR02.	1.6	10
69	Lesion detectability in motion compensated image reconstruction of respiratory gated PET/CT. , 2006, , .		9
70	Image-based correction for mismatched attenuation in PET images. , 2008, , .		9
71	Improved MR to CT Synthesis for PET/MR Attenuation Correction Using Imitation Learning. Lecture Notes in Computer Science, 2019, , 13-21.	1.0	9
72	USE OF QUANTITATIVE ASO-PCR TO PREDICT RELAPSE IN MULTIPLE MYELOMA. British Journal of Haematology, 1999, 105, 317-319.	1.2	8

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73	Evaluation of the Accuracy and Robustness of a Motion Correction Algorithm for PET Using a Novel Phantom Approach. IEEE Transactions on Nuclear Science, 2012, 59, 123-130.	1.2	8
74	Data driven respiratory signal detection in PET taking advantage of time-of-flight data. , 2016, , .		8
75	Incorporation of MRI-AIF information for improved kinetic modelling of dynamic PET data. EJNMMI Physics, 2014, 1, A43.	1.3	7
76	Joint activity/attenuation reconstruction in SPECT using photopeak and scatter sinograms. , 2016, , .		7
77	A Multi-Channel Uncertainty-Aware Multi-Resolution Network for MR to CT Synthesis. Applied Sciences (Switzerland), 2021, 11, 1667.	1.3	7
78	Deep Boosted Regression for MR to CT Synthesis. Lecture Notes in Computer Science, 2018, , 61-70.	1.0	7
79	Maximum-likelihood estimation of emission and attenuation images in 3D PET from multiple energy window measurements. , 2018, , .		6
80	Joint Parametric Reconstruction and Motion Correction Framework for Dynamic PET Data. Lecture Notes in Computer Science, 2014, 17, 114-121.	1.0	6
81	Optimizability of loglikelihoods for the estimation of detector efficiencies and singles rates in PET. , 2008, , .		5
82	Properties of edge artifacts in PSF-based PET reconstruction. , 2010, , .		5
83	Using PCA to detect head motion from PET list mode data. , 2013, , .		5
84	Initial evaluation of a practical PET respiratory motion correction method in clinical simultaneous PET/MRI. EJNMMI Physics, 2014, 1, A40.	1.3	5
85	Data-driven dual-gating for cardiac PET. , 2014, , .		5
86	Performance evaluation of MAP algorithms with different penalties, object geometries and noise levels. , 2015, , .		5
87	Evaluation of motion-correction methods for dual-gated cardiac positron emission tomography/computed tomography imaging. Nuclear Medicine Communications, 2016, 37, 956-968.	0.5	5
88	Algorithms for Solving Misalignment Issues in Penalized PET/CT Reconstruction Using Anatomical Priors. , 2018, , .		5
89	Validation of SPECT-CT image reconstruction for the Mediso AnyScan SCP scanner in STIR. , 2019, , .		5
90	Medical Physics and Imagingâ€“A Timely Perspective. Frontiers in Physics, 2021, 9, .	1.0	5

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91	Stochastic EM methods with variance reduction for penalised PET reconstructions. Inverse Problems, 2021, 37, 115006.	1.0	5
92	Joint reconstruction of PET-MRI by parallel level sets. , 2014, , .		4
93	Incorporation of MRI-AIF Information For Improved Kinetic Modelling of Dynamic PET Data. IEEE Transactions on Nuclear Science, 2015, 62, 612-618.	1.2	4
94	Comparative evaluation of image reconstruction methods for the siemens PET-MR scanner using the stir library. , 2016, , .		4
95	SIRF: Synergistic Image Reconstruction Framework. , 2017, , .		4
96	Response to Owen and Rawstron. British Journal of Haematology, 2005, 128, 733-734.	1.2	3
97	A method for OSEM PET reconstruction on parallel architectures using STIR. , 2008, , .		3
98	Evaluation of the accuracy and robustness of a motion correction algorithm for PET using a novel phantom approach. , 2010, , .		3
99	A comparative study of multiple scatter estimations in 3D PET. , 2010, , .		3
100	Attenuation correction synthesis for hybrid PET-MR scanners: validation for brain study applications. EJNMMI Physics, 2014, 1, A52.	1.3	3
101	Practical PET respiratory motion correction in clinical simultaneous PET/MR. , 2015, , .		3
102	Validation of 3D model-based maximum-likelihood estimation of normalisation factors for partial ring positron emission tomography. , 2016, , .		3
103	Performance improvement and validation of a new MAP reconstruction algorithm. , 2016, , .		3
104	Improved quantitation and reproducibility in multi-PET/CT lung studies by combining CT information. EJNMMI Physics, 2018, 5, 14.	1.3	3
105	Iterative PET Image Reconstruction using Adaptive Adjustment of Subset Size and Random Subset Sampling. , 2019, , .		3
106	PET Reconstruction With Non-Negativity Constraint in Projection Space: Optimization Through Hypo-Convergence. IEEE Transactions on Medical Imaging, 2020, 39, 75-86.	5.4	3
107	Improved PET/CT Respiratory Motion Compensation by Incorporating Changes in Lung Density. IEEE Transactions on Radiation and Plasma Medical Sciences, 2020, 4, 594-602.	2.7	3
108	Flexible numerical simulation framework for dynamic PET-MR data. Physics in Medicine and Biology, 2020, 65, 145003.	1.6	3

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109	Air Fraction Correction Optimisation in PET Imaging of Lung Disease. , 2020, , .		3
110	Implementation of the First Triple Modality System Model in STIR. , 2020, , .		3
111	PET/CT Respiratory Motion Correction With a Single Attenuation Map Using NAC Derived Deformation Fields. , 2020, , .		3
112	Relation between linear and nonlinearN=3,Â4supergravity theories. Physical Review D, 1993, 48, 2789-2796.	1.6	2
113	Robust motion correction for respiratory gated PET/CT using weighted averaging. , 2011, , .		2
114	4-D PET joint image reconstruction/non-rigid motion estimation with limited MRI prior information. EJNMMI Physics, 2014, 1, A27.	1.3	2
115	Adaptive adjustment of the number of subsets during iterative image reconstruction. , 2015, , .		2
116	Joint reconstruction of activity and attenuation in dynamic PET. , 2016, , .		2
117	Detection of Lung Density Variations With Principal Component Analysis in PET. , 2017, , .		2
118	Spatially-variant Strength for Anatomical Priors in PET Reconstruction. , 2017, , .		2
119	Motion-corrected reconstruction of parametric images from dynamic PET data with the Synergistic Image Reconstruction Framework (SIRF). , 2018, , .		2
120	Implementation of Image Reconstruction for GE SIGNA PET/MR PET Data in the STIR Library. , 2018, , .		2
121	Impact of Time-of-Flight on Respiratory Motion Modelling using Non-Attenuation-Corrected PET. , 2019, , .		2
122	Synergistic tomographic image reconstruction: part 1. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200189.	1.6	2
123	Stochastic Variance Reduction Optimisation Algorithms Applied to Iterative PET Reconstruction. , 2020, , .		2
124	Evaluation of STIR Library Adapted for PET Scanners with Non-Cylindrical Geometry. Journal of Imaging, 2022, 8, 172.	1.7	2
125	Evaluation of a new regularization prior for 3D PET reconstruction including PSF modelling. , 2010, , .		1
126	Trade-off between contrast recovery, image noise and edge artifacts in PET image reconstruction using detector blurring models. , 2011, , .		1



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127	Extracting a respiratory signal from raw dynamic PET data that contain tracer kinetics. , 2013, , .		1
128	Influence of three reconstruction algorithms on the estimation of the standardize uptake value in $^{18}\text{F}$ -fluoride PET. , 2013, , .		1
129	Image reconstruction of mMR PET data using the open source software STIR. EJNMMI Physics, 2014, 1, A44.	1.3	1
130	An algorithm for direct 4-D PET image reconstruction/non-rigid motion estimation with limited MRI prior information. , 2014, , .		1
131	Establishment of an open database of realistic simulated data for evaluation of partial volume correction techniques in brain PET/MR. EJNMMI Physics, 2015, 2, A44.	1.3	1
132	Density variation during respiration affects PET quantitation in the lung. , 2015, , .		1
133	Engineering WT1-Encoding mRNA to Increase Translational Efficiency in Dendritic Cells. Methods in Molecular Biology, 2016, 1428, 115-123.	0.4	1
134	Data Driven Cone Beam CT Motion Management for Radiotherapy Application. , 2017, , .		1
135	Improvement of the Sign Determination Method for Data-Driven respiratory signal in TOF-PET. , 2017, , .		1
136	Reconstruction of Time-of-Flight Projection Data with the STIR reconstruction framework. , 2017, , .		1
137	Estimation of Timing Resolution for Very Fast Time-Of-Flight Detectors in Monte Carlo Simulations. , 2018, , .		1
138	Mass Preservation for Respiratory Motion Registration in both PET and CT. , 2019, , .		1
139	Respiratory Motion Correction in Dynamic PET with a Single Attenuation Map. , 2019, , .		1
140	PCA regression for continuous estimation of head pose in PET/MR. , 2019, , .		1
141	Penalized PET/CT Reconstruction Algorithms With Automatic Realignment for Anatomical Priors. IEEE Transactions on Radiation and Plasma Medical Sciences, 2021, 5, 362-372.	2.7	1
142	Detection Efficiency Modeling and Joint Activity and Attenuation Reconstruction in Non-TOF 3-D PET From Multiple-Energy Window Data. IEEE Transactions on Radiation and Plasma Medical Sciences, 2022, 6, 87-97.	2.7	1
143	Uncertainty-Aware Multi-resolution Whole-Body MR to CT Synthesis. Lecture Notes in Computer Science, 2020, , 110-119.	1.0	1
144	Evaluation of the novel 3D SPECT modelling algorithm in the STIR reconstruction framework: Simple vs. full attenuation correction. , 2013, , .		0

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145	Rapid workflow of mMR PET list-mode data processing using CUDA. EJNMMI Physics, 2015, 2, A42.	1.3	0
146	Sign determination methods for the respiratory signal in data-driven PET gating. , 2015, , .		0
147	Joint reconstruction of activity and attenuation in non-TOF PET using a synergistic prior to enforce structural similarities. , 2019, , .		0
148	Synergistic tomographic image reconstruction: part 2. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20210111.	1.6	0
149	Versatile regularisation toolkit for iterative image reconstruction with proximal splitting algorithms. , 2019, , .		0
150	Normalisation Factor Estimation in non-TOF 3D PET from Multiple-Energy Window Data. , 2020, , .		0