

# Kris Thielemans

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/647815/publications.pdf>

Version: 2024-02-01

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	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
2	PET respiratory motion correction: quo vadis?. Physics in Medicine and Biology, 2022, 67, 03TR02.	1.6	10
3	Evaluation of STIR Library Adapted for PET Scanners with Non-Cylindrical Geometry. Journal of Imaging, 2022, 8, 172.	1.7	2
4	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
5	A Multi-Channel Uncertainty-Aware Multi-Resolution Network for MR to CT Synthesis. Applied Sciences (Switzerland), 2021, 11, 1667.	1.3	7
6	(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
7	Medical Physics and Imaging – A Timely Perspective. Frontiers in Physics, 2021, 9, .	1.0	5
8	Synergistic tomographic image reconstruction: part 1. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200189.	1.6	2
9	Synergistic tomographic image reconstruction: part 2. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20210111.	1.6	0
10	Stochastic EM methods with variance reduction for penalised PET reconstructions. Inverse Problems, 2021, 37, 115006.	1.0	5
11	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
12	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
13	SIRF: Synergistic Image Reconstruction Framework. Computer Physics Communications, 2020, 249, 107087.	3.0	35
14	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
15	Effect of attenuation mismatches in time of flight PET reconstruction. Physics in Medicine and Biology, 2020, 65, 085009.	1.6	10
16	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
17	Flexible numerical simulation framework for dynamic PET-MR data. Physics in Medicine and Biology, 2020, 65, 145003.	1.6	3
18	Uncertainty-Aware Multi-resolution Whole-Body MR to CT Synthesis. Lecture Notes in Computer Science, 2020, , 110-119.	1.0	1

#	ARTICLE	IF	CITATIONS
19	Air Fraction Correction Optimisation in PET Imaging of Lung Disease. , 2020, , .		3
20	Implementation of the First Triple Modality System Model in STIR. , 2020, , .		3
21	Stochastic Variance Reduction Optimisation Algorithms Applied to Iterative PET Reconstruction. , 2020, , .		2
22	Normalisation Factor Estimation in non-TOF 3D PET from Multiple-Energy Window Data. , 2020, , .		0
23	PET/CT Respiratory Motion Correction With a Single Attenuation Map Using NAC Derived Deformation Fields. , 2020, , .		3
24	Characterization of Knitted Coils for e-Textiles. IEEE Sensors Journal, 2019, 19, 7835-7840.	2.4	14
25	Effect of positron range on PET quantification in diseased and normal lungs. Physics in Medicine and Biology, 2019, 64, 205010.	1.6	11
26	Hybrid PET-MR list-mode kernelized expectation maximization reconstruction. Inverse Problems, 2019, 35, 044001.	1.0	36
27	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
28	A randomised, placebo-controlled study of omipalisib (PI3K/mTOR) in idiopathic pulmonary fibrosis. European Respiratory Journal, 2019, 53, 1801992.	3.1	101
29	Mass Preservation for Respiratory Motion Registration in both PET and CT. , 2019, , .		1
30	Joint reconstruction of activity and attenuation in non-TOF PET using a synergistic prior to enforce structural similarities. , 2019, , .		0
31	Respiratory Motion Correction in Dynamic PET with a Single Attenuation Map. , 2019, , .		1
32	Validation of SPECT-CT image reconstruction for the Mediso AnyScan SCP scanner in STIR. , 2019, , .		5
33	PCA regression for continuous estimation of head pose in PET/MR. , 2019, , .		1
34	Impact of Time-of-Flight on Respiratory Motion Modelling using Non-Attenuation-Corrected PET. , 2019, , .		2
35	Iterative PET Image Reconstruction using Adaptive Adjustment of Subset Size and Random Subset Sampling. , 2019, , .		3
36	The Vacuolar Pathway of Long Peptide Cross-Presentation Can Be TAP Dependent. Journal of Immunology, 2019, 202, 451-459.	0.4	19

#	ARTICLE	IF	CITATIONS
37	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
38	Improved MR to CT Synthesis for PET/MR Attenuation Correction Using Imitation Learning. <i>Lecture Notes in Computer Science</i> , 2019, , 13-21.	1.0	9
39	Versatile regularisation toolkit for iterative image reconstruction with proximal splitting algorithms. , 2019, , .		0
40	Fast Quasi-Newton Algorithms for Penalized Reconstruction in Emission Tomography and Further Improvements via Preconditioning. <i>IEEE Transactions on Medical Imaging</i> , 2018, 37, 1000-1010.	5.4	14
41	Advances in clinical molecular imaging instrumentation. <i>Clinical and Translational Imaging</i> , 2018, 6, 31-45.	1.1	53
42	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
43	Clinical Impact of Respiratory Motion Correction in Simultaneous PET/MR, Using a Joint PET/MR Predictive Motion Model. <i>Journal of Nuclear Medicine</i> , 2018, 59, 1467-1473.	2.8	16
44	Issues in quantification of registered respiratory gated PET/CT in the lung. <i>Physics in Medicine and Biology</i> , 2018, 63, 015007.	1.6	14
45	Improved quantitation and reproducibility in multi-PET/CT lung studies by combining CT information. <i>EJNMMI Physics</i> , 2018, 5, 14.	1.3	3
46	Non-invasive kinetic modelling of PET tracers with radiometabolites using a constrained simultaneous estimation method: evaluation with 11C-SB201745. <i>EJNMMI Research</i> , 2018, 8, 58.	1.1	17
47	Motion-corrected reconstruction of parametric images from dynamic PET data with the Synergistic Image Reconstruction Framework (SIRF). , 2018, , .		2
48	Maximum-likelihood estimation of emission and attenuation images in 3D PET from multiple energy window measurements. , 2018, , .		6
49	Algorithms for Solving Misalignment Issues in Penalized PET/CT Reconstruction Using Anatomical Priors. , 2018, , .		5
50	Estimation of Timing Resolution for Very Fast Time-Of-Flight Detectors in Monte Carlo Simulations. , 2018, , .		1
51	Implementation of Image Reconstruction for GE SIGNA PET/MR PET Data in the STIR Library. , 2018, , .		2
52	Deep Boosted Regression for MR to CT Synthesis. <i>Lecture Notes in Computer Science</i> , 2018, , 61-70.	1.0	7
53	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
54	Quantification of Lung PET Images: Challenges and Opportunities. <i>Journal of Nuclear Medicine</i> , 2017, 58, 201-207.	2.8	55

#	ARTICLE	IF	CITATIONS
55	Evaluation of a direct motion estimation/correction method in respiratory-gated PET/MRI with motion-adjusted attenuation. <i>Medical Physics</i> , 2017, 44, 2379-2390.	1.6	11
56	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
57	Potential benefits of incorporating energy information when estimating attenuation from PET data. , 2017, , .		10
58	Detection of Lung Density Variations With Principal Component Analysis in PET. , 2017, , .		2
59	SIRF: Synergistic Image Reconstruction Framework. , 2017, , .		4
60	Spatially-variant Strength for Anatomical Priors in PET Reconstruction. , 2017, , .		2
61	Data Driven Cone Beam CT Motion Management for Radiotherapy Application. , 2017, , .		1
62	Improvement of the Sign Determination Method for Data-Driven respiratory signal in TOF-PET. , 2017, , .		1
63	Reconstruction of Time-of-Flight Projection Data with the STIR reconstruction framework. , 2017, , .		1
64	Comparative evaluation of image reconstruction methods for the siemens PET-MR scanner using the stir library. , 2016, , .		4
65	Validation of 3D model-based maximum-likelihood estimation of normalisation factors for partial ring positron emission tomography. , 2016, , .		3
66	Performance improvement and validation of a new MAP reconstruction algorithm. , 2016, , .		3
67	Joint activity/attenuation reconstruction in SPECT using photopeak and scatter sinograms. , 2016, , .		7
68	Joint reconstruction of activity and attenuation in dynamic PET. , 2016, , .		2
69	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
70	Engineering WT1-Encoding mRNA to Increase Translational Efficiency in Dendritic Cells. <i>Methods in Molecular Biology</i> , 2016, 1428, 115-123.	0.4	1
71	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
72	Data driven respiratory signal detection in PET taking advantage of time-of-flight data. , 2016, , .		8

#	ARTICLE	IF	CITATIONS
73	Joint PET-MR respiratory motion models for clinical PET motion correction. Physics in Medicine and Biology, 2016, 61, 6515-6530.	1.6	27
74	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
75	PET Reconstruction With an Anatomical MRI Prior Using Parallel Level Sets. IEEE Transactions on Medical Imaging, 2016, 35, 2189-2199.	5.4	82
76	Long-Peptide Cross-Presentation by Human Dendritic Cells Occurs in Vacuoles by Peptide Exchange on Nascent MHC Class I Molecules. Journal of Immunology, 2016, 196, 1711-1720.	0.4	40
77	Maximum-Likelihood Joint Image Reconstruction/Motion Estimation in Attenuation-Corrected Respiratory Gated PET/CT Using a Single Attenuation Map. IEEE Transactions on Medical Imaging, 2016, 35, 217-228.	5.4	41
78	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
79	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
80	Rapid workflow of mMR PET list-mode data processing using CUDA. EJNMMI Physics, 2015, 2, A42.	1.3	0
81	Performance evaluation of MAP algorithms with different penalties, object geometries and noise levels. , 2015, , .		5
82	Sign determination methods for the respiratory signal in data-driven PET gating. , 2015, , .		0
83	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
84	Density variation during respiration affects PET quantitation in the lung. , 2015, , .		1
85	Improved correction for the tissue fraction effect in lung PET/CT imaging. Physics in Medicine and Biology, 2015, 60, 7387-7402.	1.6	48
86	Multiple myeloma induces Mcl-1 expression and survival of myeloid-derived suppressor cells. Oncotarget, 2015, 6, 10532-10547.	0.8	64
87	Adaptive adjustment of the number of subsets during iterative image reconstruction. , 2015, , .		2
88	Multi-contrast attenuation map synthesis for PET/MR scanners: assessment on FDG and Florbetapir PET tracers. European Journal of Nuclear Medicine and Molecular Imaging, 2015, 42, 1447-1458.	3.3	35
89	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
90	Joint reconstruction of PET-MRI by exploiting structural similarity. Inverse Problems, 2015, 31, 015001.	1.0	106

#	ARTICLE	IF	CITATIONS
91	Practical PET respiratory motion correction in clinical simultaneous PET/MR. , 2015, , .		3
92	Axitinib increases the infiltration of immune cells and reduces the suppressive capacity of monocytic MDSCs in an intracranial mouse melanoma model. Oncolmmunology, 2015, 4, e998107.	2.1	65
93	Targeting the tumor microenvironment to enhance antitumor immune responses. Oncotarget, 2015, 6, 1359-1381.	0.8	59
94	Including Anatomical and Functional Information in MC Simulation of PET and SPECT Brain Studies. Brain-UISET: A Voxel-Based Iterative Method. IEEE Transactions on Medical Imaging, 2014, 33, 1931-1938.	5.4	12
95	Location, location, location: functional and phenotypic heterogeneity between tumor-infiltrating and non-infiltrating myeloid-derived suppressor cells. Oncolmmunology, 2014, 3, e956579.	2.1	60
96	4-D PET joint image reconstruction/non-rigid motion estimation with limited MRI prior information. EJNMMI Physics, 2014, 1, A27.	1.3	2
97	Initial evaluation of a practical PET respiratory motion correction method in clinical simultaneous PET/MRI. EJNMMI Physics, 2014, 1, A40.	1.3	5
98	Incorporation of MRI-AIF information for improved kinetic modelling of dynamic PET data. EJNMMI Physics, 2014, 1, A43.	1.3	7
99	Image reconstruction of mMR PET data using the open source software STIR. EJNMMI Physics, 2014, 1, A44.	1.3	1
100	Attenuation correction synthesis for hybrid PET-MR scanners: validation for brain study applications. EJNMMI Physics, 2014, 1, A52.	1.3	3
101	Data-driven dual-gating for cardiac PET. , 2014, , .		5
102	An algorithm for direct 4-D PET image reconstruction/non-rigid motion estimation with limited MRI prior information. , 2014, , .		1
103	Effect of scatter correction when comparing attenuation maps: Application to brain PET/MR. , 2014, , .		10
104	Joint reconstruction of PET-MRI by parallel level sets. , 2014, , .		4
105	Joint Parametric Reconstruction and Motion Correction Framework for Dynamic PET Data. Lecture Notes in Computer Science, 2014, 17, 114-121.	1.0	6
106	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
107	Using PCA to detect head motion from PET list mode data. , 2013, , .		5
108	Comparison of different methods for data-driven respiratory gating of PET data. , 2013, , .		10

#	ARTICLE	IF	CITATIONS
109	Extracting a respiratory signal from raw dynamic PET data that contain tracer kinetics. , 2013, , .		1
110	Evaluation of the novel 3D SPECT modelling algorithm in the STIR reconstruction framework: Simple vs. full attenuation correction. , 2013, , .		0
111	Influence of three reconstruction algorithms on the estimation of the standardize uptake value in $^{18}\text{F}$ -fluoride PET. , 2013, , .		1
112	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
113	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
114	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
115	STIR: software for tomographic image reconstruction release 2. Physics in Medicine and Biology, 2012, 57, 867-883.	1.6	375
116	Properties and Mitigation of Edge Artifacts in PSF-Based PET Reconstruction. IEEE Transactions on Nuclear Science, 2011, 58, 2264-2275.	1.2	59
117	Comparative evaluation of scatter correction in 3D PET using different scatter-level approximations. Annals of Nuclear Medicine, 2011, 25, 643-649.	1.2	39
118	Convergence optimization of parametric MLEM reconstruction for estimation of Patlak plot parameters. Computerized Medical Imaging and Graphics, 2011, 35, 407-416.	3.5	14
119	Robust motion correction for respiratory gated PET/CT using weighted averaging. , 2011, , .		2
120	Trade-off between contrast recovery, image noise and edge artifacts in PET image reconstruction using detector blurring models. , 2011, , .		1
121	Device-less gating for PET/CT using PCA. , 2011, , .		80
122	Quiescent period respiratory gating for PET/CT. Medical Physics, 2010, 37, 5037-5043.	1.6	94
123	Evaluation of the accuracy and robustness of a motion correction algorithm for PET using a novel phantom approach. , 2010, , .		3
124	Evaluation of a new regularization prior for 3D PET reconstruction including PSF modelling. , 2010, , .		1
125	A comparative study of multiple scatter estimations in 3D PET. , 2010, , .		3
126	Properties of edge artifacts in PSF-based PET reconstruction. , 2010, , .		5



#	ARTICLE	IF	CITATIONS
127	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
128	Cognitive deficits and striato-frontal dopamine release in Parkinson's disease. Brain, 2008, 131, 1294-1302.	3.7	247
129	Normalisation of Histogrammed List Mode Data. IEEE Transactions on Nuclear Science, 2008, 55, 543-551.	1.2	16
130	A method for OSEM PET reconstruction on parallel architectures using STIR. , 2008, , .		3
131	Study of direct and indirect parametric estimation methods of linear models in dynamic positron emission tomography. Medical Physics, 2008, 35, 1299-1309.	1.6	91
132	Optimizability of loglikelihoods for the estimation of detector efficiencies and singles rates in PET. , 2008, , .		5
133	Image-based correction for mismatched attenuation in PET images. , 2008, , .		9
134	A survey of approaches for direct parametric image reconstruction in emission tomography. Medical Physics, 2008, 35, 3963-3971.	1.6	80
135	Convergence properties of algorithms for direct parametric estimation of linear models in dynamic PET. , 2007, , .		11
136	Lesion detectability in motion compensated image reconstruction of respiratory gated PET/CT. , 2006, , .		9
137	Theoretical Comparison of Motion Correction Techniques for PET Image Reconstruction. , 2006, , .		16
138	STIR: Software for Tomographic Image Reconstruction Release 2. , 2006, , .		53
139	Response to Owen and Rawstron. British Journal of Haematology, 2005, 128, 733-734.	1.2	3
140	Object Dependency of Resolution in Reconstruction Algorithms With Interiteration Filtering Applied to PET Data. IEEE Transactions on Medical Imaging, 2004, 23, 433-446.	5.4	13
141	Messenger RNA-Electroporated Dendritic Cells Presenting MAGE-A3 Simultaneously in HLA Class I and Class II Molecules. Journal of Immunology, 2004, 172, 6649-6657.	0.4	182
142	Autoimmune Lymphoproliferative Syndrome Type III: An Indefinite Disorder. Leukemia and Lymphoma, 2001, 41, 55-65.	0.6	16
143	USE OF QUANTITATIVE ASO-PCR TO PREDICT RELAPSE IN MULTIPLE MYELOMA. British Journal of Haematology, 1999, 105, 317-319.	1.2	8
144	IL-12 prevents neonatal induction of transplantation tolerance in mice. European Journal of Immunology, 1998, 28, 1426-1430.	1.6	45

#	ARTICLE	IF	CITATIONS
145	Interleukin-10 prevents the generation of dendritic cells from human peripheral blood mononuclear cells cultured with interleukin-4 and granulocyte/ macrophage-colony-stimulating factor. European Journal of Immunology, 1997, 27, 756-762.	1.6	223
146	Human dendritic cell responses to lipopolysaccharide and CD40 ligation are differentially regulated by interleukin-10. European Journal of Immunology, 1997, 27, 1848-1852.	1.6	187
147	CD40 engagement induces monocyte procoagulant activity through an interleukin-10 resistant pathway. European Journal of Immunology, 1996, 26, 3048-3054.	1.6	36
148	Induced and effective gravity theories in $D = 2$ . Nuclear Physics B, 1993, 407, 459-512.	0.9	13
149	Relation between linear and nonlinear $N=3, \hat{A}4$ supergravity theories. Physical Review D, 1993, 48, 2789-2796.	1.6	2
150	On the Casimir algebra of $B_2$ . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1991, 263, 378-384.	1.5	16