

# Miles N Wernick

## List of Publications by Year in descending order

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135  
papers

4,124  
citations

126907

33  
h-index

123424

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135  
all docs

135  
docs citations

135  
times ranked

3569  
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving detection accuracy of perfusion defect in standard dose SPECT-myocardial perfusion imaging by deep-learning denoising. Journal of Nuclear Cardiology, 2022, 29, 2340-2349.	2.1	5
2	Retrospective fractional dose reduction in Tc-99m cardiac perfusion SPECT/CT patients: A human and model observer study. Journal of Nuclear Cardiology, 2021, 28, 624-637.	2.1	5
3	Deep learning with noise-to-noise training for denoising in SPECT myocardial perfusion imaging. Medical Physics, 2021, 48, 156-168.	3.0	28
4	Evaluation of the effect of reducing administered activity on assessment of function in cardiac gated SPECT. Journal of Nuclear Cardiology, 2020, 27, 562-572.	2.1	6
5	Improving Diagnostic Accuracy in Low-Dose SPECT Myocardial Perfusion Imaging With Convolutional Denoising Networks. IEEE Transactions on Medical Imaging, 2020, 39, 2893-2903.	8.9	59
6	Improving perfusion defect detection with respiratory motion correction in cardiac SPECT at standard and reduced doses. Journal of Nuclear Cardiology, 2019, 26, 1526-1538.	2.1	4
7	Approximate 4D Reconstruction of Cardiac-Gated Spect Images Using a Residual Convolutional Neural Network. , 2019, , .		2
8	Low-Dose Cardiac-Gated Spect Studies Using a Residual Convolutional Neural Network. , 2019, , .		13
9	Personalized Models for Injected Activity Levels in SPECT Myocardial Perfusion Imaging. IEEE Transactions on Medical Imaging, 2019, 38, 1466-1476.	8.9	6
10	Prediction of cardiac death after adenosine myocardial perfusion SPECT based on machine learning. Journal of Nuclear Cardiology, 2019, 26, 1746-1754.	2.1	57
11	Motion-compensated image reconstruction vs postreconstruction correction in respiratory-binned SPECT with standard and reduced-dose acquisitions. Medical Physics, 2018, 45, 2991-3000.	3.0	8
12	Investigation of dose reduction in cardiac perfusion SPECT via optimization and choice of the image reconstruction strategy. Journal of Nuclear Cardiology, 2018, 25, 2117-2128.	2.1	35
13	Effect of Respiratory Motion Correction in Perfusion Spect Imaging. , 2018, , .		0
14	FDG PET Parkinson's disease-related pattern as a biomarker for clinical trials in early stage disease. NeuroImage: Clinical, 2018, 20, 572-579.	2.7	60
15	4-D Reconstruction With Respiratory Correction for Gated Myocardial Perfusion SPECT. IEEE Transactions on Medical Imaging, 2017, 36, 1626-1635.	8.9	20
16	PET Imaging of Tau Pathology and Relationship to Amyloid, Longitudinal MRI, and Cognitive Change in Down Syndrome: Results from the Down Syndrome Biomarker Initiative (DSBI). Journal of Alzheimer's Disease, 2017, 60, 439-450.	2.6	80
17	4D reconstruction of cardiac SPECT using a robust spatialtemporal prior. , 2017, , .		1
18	Reconstruction of respiratory-binned cardiac spect using a robust smoothing prior. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
19	Joint motion correction and image reconstruction in respiratory-gated SPECT. , 2016, , .		1
20	An image-retrieval aided diagnosis system for clustered microcalcifications. , 2016, , .		4
21	Optimizing motion correction in reconstruction of respiratory-gated spect. , 2016, , .		3
22	Measurement of repeat effects in Chicagoâ€™s criminal social network. Applied Computing and Informatics, 2016, 12, 154-160.	5.9	5
23	Limited-angle effect compensation for respiratory binned cardiac SPECT. Medical Physics, 2015, 43, 443-454.	3.0	14
24	A computational model to generate simulated threeâ€dimensional breast masses. Medical Physics, 2015, 42, 1098-1118.	3.0	52
25	4D non-local means post-filtering for cardiac gated SPECT. , 2015, , .		4
26	Compensation of acquisition variations in respiratory-gated SPECT with joint statistical reconstruction. , 2015, , .		3
27	Noise properties and task-based evaluation of diffraction-enhanced imaging. Journal of Medical Imaging, 2014, 1, 033503.	1.5	1
28	Exploring perceptually similar cases with multi-dimensional scaling. Proceedings of SPIE, 2014, , .	0.8	0
29	Analysis of perceived similarity between pairs of microcalcification clusters in mammograms. Medical Physics, 2014, 41, 051904.	3.0	11
30	Limited-angle tomography for analyzer-based phase-contrast x-ray imaging. Physics in Medicine and Biology, 2014, 59, 3483-3500.	3.0	0
31	4D reconstruction for dual cardiac-respiratory gated SPECT. , 2013, , .		2
32	4D reconstruction for low-dose cardiac gated SPECT. Medical Physics, 2013, 40, 022501.	3.0	31
33	Nondestructive volumetric imaging of tissue microstructure with benchtop x-ray phase-contrast tomography and critical point drying. Biomedical Optics Express, 2012, 3, 1924.	2.9	25
34	Utility of 4D reconstruction for low-dose cardiac gated SPECT. , 2012, , .		1
35	Multispectral Diagnostic Imaging of the Iris in Pigment Dispersion Syndrome. Journal of Glaucoma, 2012, 21, 351-357.	1.6	4
36	A comparison study of image features between FFDM and film mammogram images. Medical Physics, 2012, 39, 4386-4394.	3.0	7

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37	Adaptation of a clustered lumpy background model for task-based image quality assessment in x-ray phase-contrast mammography. <i>Medical Physics</i> , 2012, 39, 906-911.	3.0	8
38	Quantification of Pupil Parameters in Diseased and Normal Eyes With Near Infrared Iris Transillumination Imaging. <i>Ophthalmic Surgery Lasers and Imaging Retina</i> , 2012, 43, 196-204.	0.7	5
39	Direct reconstruction of parametric images from cardiac gated dynamic spect data. , 2011, , .		1
40	Dimensionality estimation for optimal detection of functional networks in BOLD fMRI data. <i>NeuroImage</i> , 2011, 56, 531-543.	4.2	40
41	Numerical observer for cardiac motion assessment using machine learning. <i>Proceedings of SPIE</i> , 2011, , .	0.8	7
42	Channelized relevance vector machine as a numerical observer for cardiac perfusion defect detection task. , 2011, , .		3
43	Effects of motion, attenuation, and scatter corrections on gated cardiac SPECT reconstruction. <i>Medical Physics</i> , 2011, 38, 6571-6584.	3.0	29
44	Temporal regularization in fully 5D reconstruction of cardiac gated dynamic SPECT images. , 2011, , .		1
45	Direct parametric reconstruction of gated dynamic cardiac spect. , 2011, , .		0
46	Numerical observer for cardiac motion assessment. , 2010, , .		3
47	Detectability of perfusion defect in five-dimensional gated dynamic cardiac SPECT images. <i>Medical Physics</i> , 2010, 37, 5102-5112.	3.0	9
48	Gated dynamic image reconstruction using temporal B-splines. , 2010, , .		0
49	Numerical observer for cardiac motion assessment using a linear discriminant. , 2010, , .		2
50	Motion-compensated reconstruction of gated cardiac SPECT images using a deformable mesh model. , 2010, , .		3
51	Regularized Fully 5D Reconstruction of Cardiac Gated Dynamic SPECT Images. <i>IEEE Transactions on Nuclear Science</i> , 2010, 57, 1085-1095.	2.0	16
52	4D reconstruction of cardiac gated SPECT images using a content-adaptive deformable mesh model. , 2010, , .		1
53	Development of a computational three-dimensional breast lesion phantom model. , 2010, , .		4
54	Prostate Cancer Localization With Multispectral MRI Using Cost-Sensitive Support Vector Machines and Conditional Random Fields. <i>IEEE Transactions on Image Processing</i> , 2010, 19, 2444-2455.	9.8	112

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55	Supervised and unsupervised methods for prostate cancer segmentation with multispectral MRI. Medical Physics, 2010, 37, 1873-1883.	3.0	109
56	The Roles of Signal Processing in Medical Imaging [From the Guest Editors. IEEE Signal Processing Magazine, 2010, 27, 12-140.	5.6	1
57	Machine Learning in Medical Imaging. IEEE Signal Processing Magazine, 2010, 27, 25-38.	5.6	260
58	Cardiac perfusion defect detection using gated dynamic SPECT imaging. , 2009, , .		2
59	Imaging in sitting position may reduce liver artifact in myocardium perfusion imaging. , 2009, , .		0
60	Detectability of perfusion defect in gated dynamic cardiac SPECT images. , 2009, , .		1
61	Deformable mesh model of cardiac motion from tagged MRI data. , 2009, , .		5
62	Motion-compensated temporal summation of cardiac gated SPECT images using a deformable mesh model. , 2009, 2009, 3657-60.		3
63	Motion-compensated post-processing of gated cardiac SPECT images using a deformable mesh model. Proceedings of SPIE, 2009, , .	0.8	2
64	A quantitative evaluation study of four-dimensional gated cardiac SPECT reconstruction. Physics in Medicine and Biology, 2009, 54, 5643-5659.	3.0	24
65	Learning a Channelized Observer for Image Quality Assessment. IEEE Transactions on Medical Imaging, 2009, 28, 991-999.	8.9	46
66	Prostate Cancer Segmentation With Simultaneous Estimation of Markov Random Field Parameters and Class. IEEE Transactions on Medical Imaging, 2009, 28, 906-915.	8.9	113
67	Learning of Perceptual Similarity From Expert Readers for Mammogram Retrieval. IEEE Journal on Selected Topics in Signal Processing, 2009, 3, 53-61.	10.8	23
68	Analysis of the spectrum in phase-contrast mammography. Proceedings of SPIE, 2009, , .	0.8	0
69	Novel Observations and Potential Applications Using Digital Infrared Iris Imaging. Ophthalmic Surgery Lasers and Imaging Retina, 2009, 40, 207-216.	0.7	7
70	Sampling strategies in multiple-image radiography. , 2008, , .		4
71	Validity of a fully coherent field model for in-line x-ray phase imaging. , 2008, , .		0
72	Simultaneous estimation of the Markov random field parameters and the classes for image segmentation. , 2008, , .		0

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73	4D reconstruction of cardiac images using temporal fourier basis functions. , 2008, , .		4
74	Parameter estimation in Multiple-Image Radiography. , 2008, , .		2
75	Motion compensated spatio-temporal filtering of cardiac gated SPECT images. , 2008, , .		4
76	An extended diffraction-enhanced imaging method for implementing multiple-image radiography. Physics in Medicine and Biology, 2007, 52, 1923-1945.	3.0	55
77	FOUR-DIMENSIONAL RECONSTRUCTION OF GATED CARDIAC SPECT WITH ATTENUATION AND SCATTER COMPENSATION. , 2007, , .		3
78	Infrared Imaging Technique may Help Demonstrate Iris Transillumination Defects in Blacks who Show Other Pigment Dispersion Syndrome Clinical Signs. Journal of Glaucoma, 2007, 16, 440-447.	1.6	13
79	Dynamic Image Reconstruction using Temporally Adaptive Regularization for Emission Tomography. , 2007, , .		8
80	Four-dimensional gated cardiac SPECT reconstruction and evaluation study. , 2007, , .		1
81	Limited-angle tomography for multiple-image radiography. , 2007, , .		1
82	TOMOSYNTHESIS IMPLEMENTATION OF MULTIPLE IMAGE RADIOGRAPHY. , 2007, , .		1
83	Effect of Spatial Alignment Transformations in PCA and ICA of Functional Neuroimages. IEEE Transactions on Medical Imaging, 2007, 26, 1058-1068.	8.9	6
84	Bayesian Kernel Methods for Analysis of Functional Neuroimages. IEEE Transactions on Medical Imaging, 2007, 26, 1613-1624.	8.9	13
85	Fully 5D reconstruction of gated dynamic cardiac SPECT images. , 2006, , .		5
86	Kernel Methods for Functional Neuroimaging Analysis. , 2006, , .		0
87	Methods to detect objects in photon-limited images. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 272.	1.5	5
88	<title>Progress in multiple-image radiography</title>. , 2006, 6065, 256.		0
89	Generalization evaluation of numerical observers for image quality assessment. , 2006, , .		4
90	<title>Machine learning of human responses to images</title>. , 2006, 6065, 234.		0

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91	Multiple-image radiography for human soft tissue. Journal of Anatomy, 2006, 208, 115-124.	1.5	40
92	Simultaneous assessment of cardiac perfusion and function using 5-dimensional imaging with Tc-99m teboroxime. Journal of Nuclear Cardiology, 2006, 13, 354-361.	2.1	28
93	A comparison of a generalized DEI method with multiple-image radiography. , 2006, 6318, 387.		0
94	A physical model of multiple-image radiography. Physics in Medicine and Biology, 2006, 51, 221-236.	3.0	91
95	Fast dynamic image reconstruction for gated cardiac SPECT. , 2006, , .		4
96	Computation of mass-density images from x-ray refraction-angle images. Physics in Medicine and Biology, 2006, 51, 1769-1778.	3.0	24
97	A computed tomography implementation of multiple-image radiography. Medical Physics, 2006, 33, 278-289.	3.0	55
98	Mammogram Retrieval by Similarity Learning from Experts. , 2006, , .		2
99	Spatially Adaptive Temporal Smoothing for Reconstruction of Dynamic Image Sequences. IEEE Transactions on Nuclear Science, 2006, 53, 2769-2777.	2.0	6
100	5D Image Reconstruction for Tomographic Image Sequences. , 2006, , .		0
101	Application of the Multiple Image Radiography Method to Breast Imaging. Lecture Notes in Computer Science, 2006, , 289-298.	1.3	2
102	Spatiotemporal processing of gated cardiac SPECT images using deformable mesh modeling. Medical Physics, 2005, 32, 2839-2849.	3.0	46
103	Relevance vector machine for automatic detection of clustered microcalcifications. IEEE Transactions on Medical Imaging, 2005, 24, 1278-1285.	8.9	127
104	Iterative Image Reconstruction. , 2004, , 443-472.		22
105	A Similarity Learning Approach to Content-Based Image Retrieval: Application to Digital Mammography. IEEE Transactions on Medical Imaging, 2004, 23, 1233-1244.	8.9	243
106	Tomographic Image Reconstruction Based on a Content-Adaptive Mesh Model. IEEE Transactions on Medical Imaging, 2004, 23, 202-212.	8.9	71
107	A preliminary study of multiple-image computed tomography. , 2004, , .		4
108	Noise analysis and image denoising for DEI. , 2004, , .		1

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109	Observers' ability to judge the similarity of clustered calcifications on mammograms. , 2004, , .		17
110	Multiple-image radiography. Physics in Medicine and Biology, 2003, 48, 3875-3895.	3.0	219
111	Extraction of extinction, refraction and absorption properties in diffraction enhanced imaging. Journal Physics D: Applied Physics, 2003, 36, 2152-2156.	2.8	122
112	A fast approach for accurate content-adaptive mesh generation. IEEE Transactions on Image Processing, 2003, 12, 866-881.	9.8	66
113	Segmentation of dynamic PET or fMRI images based on a similarity metric. IEEE Transactions on Nuclear Science, 2003, 50, 1410-1414.	2.0	41
114	Digital Camera System to Perform Infrared Photography of Iris Transillumination. Journal of Glaucoma, 2002, 11, 426-428.	1.6	11
115	A support vector machine approach for detection of microcalcifications. IEEE Transactions on Medical Imaging, 2002, 21, 1552-1563.	8.9	475
116	Optimization of iterative reconstructions of <sup>99m</sup> Tc cardiac SPECT studies using numerical observers. IEEE Transactions on Nuclear Science, 2002, 49, 2355-2360.	2.0	59
117	An evaluation of methods for detecting brain activations from functional neuroimages. Artificial Intelligence in Medicine, 2002, 25, 69-88.	6.5	48
118	A NEW INFRARED PHOTOGRAPHIC METHOD USING DIGITAL CAMERA TECHNOLOGY TO DETECT AND RECORD TRANSILLUMINATION DEFECTS OF THE IRIS.. Optometry and Vision Science, 2001, 78, 268.	1.2	0
119	<title>Statistical analysis of dynamic sequences for functional imaging</title>. , 2000, 3978, 347.		1
120	Iterative linear minimum mean-square-error image restoration from partially known blur. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 711.	1.5	8
121	Improved image quality and computation reduction in 4-D reconstruction of cardiac-gated SPECT images. IEEE Transactions on Medical Imaging, 2000, 19, 423-433.	8.9	39
122	Fast spatio-temporal image reconstruction for dynamic PET. IEEE Transactions on Medical Imaging, 1999, 18, 185-195.	8.9	108
123	Application of the Karhunen-Loeve transform to 4D reconstruction of cardiac gated SPECT images. IEEE Transactions on Nuclear Science, 1999, 46, 1001-1008.	2.0	46
124	Preliminary assessment of extrastriatal dopamine d-2 receptor binding in the rodent and nonhuman primate brains using the high affinity radioligand, 18F-fallypride. Nuclear Medicine and Biology, 1999, 26, 519-527.	0.6	119
125	Kalman sinogram restoration for fast and accurate PET image reconstruction. IEEE Transactions on Nuclear Science, 1998, 45, 3022-3029.	2.0	8
126	Object recognition based on impulse restoration with use of the expectation-maximization algorithm. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1998, 15, 2327.	1.5	17



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127	Image reconstruction for dynamic PET based on low-order approximation and restoration of the sinogram. IEEE Transactions on Medical Imaging, 1997, 16, 738-749.	8.9	49
128	SPATIAL RELATIONSHIPS IN EARLY SIGNALING EVENTS OF FLOW-MEDIATED ENDOTHELIAL MECHANOTRANSDUCTION. Annual Review of Physiology, 1997, 59, 527-549.	13.1	293
129	Sinogram Recovery of Dynamic PET Using Principal Component Analysis and Projections onto Convex Sets. , 1996, , 109-112.		1
130	Effect of spatial coherence on knife-edge measurements of detector modulation transfer function. Applied Optics, 1994, 33, 5906.	2.1	7
131	A 3-D filtered-backprojection reconstruction algorithm for combined parallel- and cone-beam SPECT data. , 1993, , 387-400.		4
132	Superresolved tomography by convex projections and detector motion. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1992, 9, 1547.	1.5	33
133	Pattern classification by convex analysis. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1991, 8, 1874.	1.5	11
134	Image classification at low light levels. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1986, 3, 2179.	1.5	20
135	Image correlation at low light levels. Optics Letters, 1985, 10, 315.	3.3	10