Yongyi Yang

List of Publications by Year
in descending order

171 papers	4,922 citations	159585 30 h-index	102487 66 g-index
172 all docs	172 docs citations	172 times ranked	3770 citing authors

#	Article	IF	Citations
1	A support vector machine approach for detection of microcalcifications. IEEE Transactions on Medical Imaging, 2002, 21, 1552-1563.	8.9	475
2	Computer-Aided Detection and Diagnosis of Breast Cancer With Mammography: Recent Advances. IEEE Transactions on Information Technology in Biomedicine, 2009, 13, 236-251.	3.2	465
3	Regularized reconstruction to reduce blocking artifacts of block discrete cosine transform compressed images. IEEE Transactions on Circuits and Systems for Video Technology, 1993, 3, 421-432.	8.3	305
4	Projection-based spatially adaptive reconstruction of block-transform compressed images. IEEE Transactions on Image Processing, 1995, 4, 896-908.	9.8	274
5	Machine Learning in Medical Imaging. IEEE Signal Processing Magazine, 2010, 27, 25-38.	5.6	260
6	A study on several Machine-learning methods for classification of Malignant and benign clustered microcalcifications. IEEE Transactions on Medical Imaging, 2005, 24, 371-380.	8.9	253
7	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
8	Digital watermarking robust to geometric distortions. IEEE Transactions on Image Processing, 2005, 14, 2140-2150.	9.8	214
9	Detection of clustered microcalcifications using spatial point process modeling. Physics in Medicine and Biology, 2011, 56, 1-17.	3.0	157
10	Relevance vector machine for automatic detection of clustered microcalcifications. IEEE Transactions on Medical Imaging, 2005, 24, 1278-1285.	8.9	127
11	Removal of compression artifacts using projections onto convex sets and line process modeling. IEEE Transactions on Image Processing, 1997, 6, 1345-1357.	9.8	117
12	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
13	Prostate Cancer Localization With Multispectral MRI Using Cost-Sensitive Support Vector Machines and Conditional Random Fields. IEEE Transactions on Image Processing, 2010, 19, 2444-2455.	9.8	112
14	Supervised and unsupervised methods for prostate cancer segmentation with multispectral MRI. Medical Physics, 2010, 37, 1873-1883.	3.0	109
15	Microcalcification classification assisted by content-based image retrieval for breast cancer diagnosis. Pattern Recognition, 2009, 42, 1126-1132.	8.1	87
16	Tomographic Image Reconstruction Based on a Content-Adaptive Mesh Model. IEEE Transactions on Medical Imaging, 2004, 23, 202-212.	8.9	71
17	A context-sensitive deep learning approach for microcalcification detection in mammograms. Pattern Recognition, 2018, 78, 12-22.	8.1	70
18	A fast approach for accurate content-adaptive mesh generation. IEEE Transactions on Image Processing, 2003, 12, 866-881.	9.8	66

#	ARTICLE	IF	CITATIONS
19	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
20	Prediction of cardiac death after adenosine myocardial perfusion SPECT based on machine learning. Journal of Nuclear Cardiology, 2019, 26, 1746-1754.	2.1	57
21	A computed tomography implementation of multiple-image radiography. Medical Physics, 2006, 33, 278-289.	3.0	55
22	Spatiotemporal processing of gated cardiac SPECT images using deformable mesh modeling. Medical Physics, 2005, 32, 2839-2849.	3.0	46
23	Learning a Channelized Observer for Image Quality Assessment. IEEE Transactions on Medical Imaging, 2009, 28, 991-999.	8.9	46
24	Segmentation of dynamic PET or fMRI images based on a similarity metric. IEEE Transactions on Nuclear Science, 2003, 50, 1410-1414.	2.0	41
25	New Additive Watermark Detectors Based On A Hierarchical Spatially Adaptive Image Model. IEEE Transactions on Information Forensics and Security, 2008, 3, 29-37.	6.9	39
26	Pectoral muscle segmentation in mammograms based on homogenous texture and intensity deviation. Pattern Recognition, 2013, 46, 681-691.	8.1	38
27	Tomographic Reconstruction of Dynamic Cardiac Image Sequences. IEEE Transactions on Image Processing, 2007, 16, 932-942.	9.8	35
28	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
29	Motion-compensated reconstruction of tomographic image sequences. IEEE Transactions on Nuclear Science, 2005, 52, 51-56.	2.0	32
30	4D reconstruction for low-dose cardiac gated SPECT. Medical Physics, 2013, 40, 022501.	3.0	31
31	Effects of motion, attenuation, and scatter corrections on gated cardiac SPECT reconstruction. Medical Physics, 2011, 38, 6571-6584.	3.0	29
32	Deep learning with noise‐to‐noise training for denoising in SPECT myocardial perfusion imaging. Medical Physics, 2021, 48, 156-168.	3.0	28
33	Global detection approach for clustered microcalcifications in mammograms using a deep learning network. Journal of Medical Imaging, 2017, 4, 024501.	1.5	25
34	A quantitative evaluation study of four-dimensional gated cardiac SPECT reconstruction. Physics in Medicine and Biology, 2009, 54, 5643-5659.	3.0	24
35	A Simplified Cohen's Kappa for Use in Binary Classification Data Annotation Tasks. IEEE Access, 2019, 7, 164386-164397.	4.2	24
36	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

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37	A bilateral analysis scheme for false positive reduction in mammogram mass detection. Computers in Biology and Medicine, 2015, 57, 84-95.	7.0	23
38	Improving the accuracy in detection of clustered microcalcifications with a context-sensitive classification model. Medical Physics, 2015, 43, 159-170.	3.0	22
39	Design of self-healing arrays using vector-space projections. IEEE Transactions on Antennas and Propagation, 2001, 49, 526-534.	5.1	20
40	Multichannel regularized recovery of compressed video sequences. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2001, 48, 376-387.	2.2	20
41	Geometric robust watermarking based on a new mesh model correction approach. , 0, , .		20
42	Improving SVM classifier with prior knowledge in microcalcification detection1. , 2012, , .		20
43	4-D Reconstruction With Respiratory Correction for Gated Myocardial Perfusion SPECT. IEEE Transactions on Medical Imaging, 2017, 36, 1626-1635.	8.9	20
44	Wide-Band Smart Antenna Design Using Vector Space Projection Methods. IEEE Transactions on Antennas and Propagation, 2004, 52, 3228-3236.	5.1	17
45	A quantitative study of motion estimation methods on 4D cardiac gated SPECT reconstruction. Medical Physics, 2012, 39, 5182-5193.	3.0	17
46	Support vector machine learning for detection of microcalcifications in mammograms. , 0, , .		16
47	Adaptive learning for relevance feedback: Application to digital mammography. Medical Physics, 2010, 37, 4432-4444.	3.0	16
48	Regularized Fully 5D Reconstruction of Cardiac Gated Dynamic SPECT Images. IEEE Transactions on Nuclear Science, 2010, 57, 1085-1095.	2.0	16
49	A fast algorithm for accurate content-adaptive mesh generation. , 0, , .		14
50	Limited-angle effect compensation for respiratory binned cardiac SPECT. Medical Physics, 2015, 43, 443-454.	3.0	14
51	Preliminary investigation of a multiple-image radiography method. , 0, , .		13
52	Bayesian Kernel Methods for Analysis of Functional Neuroimages. IEEE Transactions on Medical Imaging, 2007, 26, 1613-1624.	8.9	13
53	Image analysis for detection of coronary artery soft plaques in MDCT images. , 2008, , .		13
54	Low-Dose Cardiac-Gated Spect Studies Using a Residual Convolutional Neural Network. , 2019, , .		13

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55	Reconstruction of dynamic gated cardiac SPECT. Medical Physics, 2006, 33, 4384-4394.	3.0	12
56	Retrieval boosted computer-aided diagnosis of clustered microcalcifications for breast cancer. Medical Physics, 2012, 39, 676-685.	3.0	12
57	Tomographic image reconstruction using content-adaptive mesh modeling. , 0, , .		11
58	Reduction of false positive detection in clustered microcalcifications. , 2013, , .		11
59	Analysis of perceived similarity between pairs of microcalcification clusters in mammograms. Medical Physics, 2014, 41, 051904.	3.0	11
60	Quantification of long anterior lens zonules and their resulting zonule–free zone sizes. Clinical and Experimental Ophthalmology, 2015, 43, 773-775.	2.6	11
61	Estimating the Accuracy Level Among Individual Detections in Clustered Microcalcifications. IEEE Transactions on Medical Imaging, 2017, 36, 1162-1171.	8.9	11
62	Optical flow estimation for a periodic images sequence. , 2008, , .		10
63	Morphologic Patterns Formed by the Anomalous Fibers Occurring Along the Anterior Capsule of the Crystalline Lens in People With the Long Anterior Zonule Trait. Anatomical Record, 2017, 300, 1336-1347.	1.4	10
64	Image retrieval based on similarity learning. , 0, , .		9
65	Content-adaptive mesh modeling for fully-3D tomographic image reconstruction. , 0, , .		9
66	New Detectors for Watermarks with Unknown Power Based on Student-t Image Priors. , 2007, , .		9
67	Microcalcification Classification Assisted by Content-Based Image Retrieval for Breast Cancer Diagnosis. , 2007, , .		9
68	Detectability of perfusion defect in five–dimensional gated–dynamic cardiac SPECT images. Medical Physics, 2010, 37, 5102-5112.	3.0	9
69	Content-based image retrieval for digital mammography. , 0, , .		8
70	Dynamic Image Reconstruction using Temporally Adaptive Regularization for Emission Tomography. , 2007, , .		8
71	Digital image processing and pattern recognition techniques for the detection of cancer. Pattern Recognition, 2009, 42, 1015-1016.	8.1	8
72	Exploiting rotation invariance with SVM classifier for microcalcification detection. , 2012, , .		8

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73	Quantitative comparison of clustered microcalcifications in for-presentation and for-processing mammograms in full-field digital mammography. Medical Physics, 2017, 44, 3726-3738.	3.0	8
74	Motionâ€compensated image reconstruction vs postreconstruction correction in respiratoryâ€binned <scp>SPECT</scp> with standard and reducedâ€dose acquisitions. Medical Physics, 2018, 45, 2991-3000.	3.0	8
75	Spatially-adaptive temporal smoothing for reconstruction of dynamic and gated image sequences. , 0, , .		7
76	Design of tapped-delay line antenna array using vector space projections. IEEE Transactions on Antennas and Propagation, 2005, 53, 4178-4182.	5.1	7
77	Motion-Compensated Dynamic Image Reconstruction for Gated Cardiac Spect. , 0, , .		7
78	A comparison study of image features between FFDM and film mammogram images. Medical Physics, 2012, 39, 4386-4394.	3.0	7
79	Cardiac motion correction for improving perfusion defect detection in cardiac SPECT at standard and reduced doses of activity. Physics in Medicine and Biology, 2019, 64, 055005.	3.0	7
80	Novel Observations and Potential Applications Using Digital Infrared Iris Imaging. Ophthalmic Surgery Lasers and Imaging Retina, 2009, 40, 207-216.	0.7	7
81	A support vector machine approach for detection of microcalcifications in mammograms. , 0, , .		6
82	Reconstruction of Dynamic Gated Cardiac SPECT. , 0, , .		6
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	Personalized Models for Injected Activity Levels in SPECT Myocardial Perfusion Imaging. IEEE Transactions on Medical Imaging, 2019, 38, 1466-1476.	8.9	6
85	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
86	Reconstruction of cardiac-gated dynamic SPECT images. , 2005, , .		5
87	Motion-Compensated Reconstruction of Dynamic Cardiac Images. , 0, , .		5
88	Fully 5D reconstruction of gated dynamic cardiac SPECT images. , 2006, , .		5
89	Learning of Perceptual Similarity from Expert Readers for Mammogram Retrieval. , 0, , .		5
90	Reconstruction of gated cardiac SPECT using DFT basis functions. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	5

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91	Coronary artery extraction and analysis for detection of soft plaques in MDCT images. , 2008, , .		5
92	Measurement of repeat effects in Chicago's criminal social network. Applied Computing and Informatics, 2016, 12, 154-160.	5.9	5
93	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
94	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
95	Motion-compensated 4D processing of gated SPECT perfusion studies. , 0, , .		4
96	Generalization evaluation of numerical observers for image quality assessment. , 2006, , .		4
97	Fast dynamic image reconstruction for gated cardiac SPECT. , 2006, , .		4
98	4D reconstruction of cardiac images using temporal fourier basis functions. , 2008, , .		4
99	Introduction to the Issue on Digital Image Processing Techniques for Oncology. IEEE Journal on Selected Topics in Signal Processing, 2009, 3, 1-3.	10.8	4
100	Multispectral Diagnostic Imaging of the Iris in Pigment Dispersion Syndrome. Journal of Glaucoma, 2012, 21, 351-357.	1.6	4
101	4D non-local means post-filtering for cardiac gated SPECT. , 2015, , .		4
102	Feature saliency analysis for perceptual similarity of clustered microcalcifications. , 2015, , .		4
103	An image-retrieval aided diagnosis system for clustered microcalcifications. , 2016, , .		4
104	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
105	TECHNIQUES IN THE DETECTION OF MICROCALCIFICATION CLUSTERS IN DIGITAL MAMMOGRAMS. , 2005, , 45-66.		4
106	Regularized multichannel recovery of compressed video. , 0, , .		3
107	Allpass filter design using projection-based method under group delay constraints. , 0, , .		3
108	Reversible jump Markov chain Monte Carlo signal detection in functional neuroimaging analysis. , 0, , .		3

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109	4D smoothing of gated SPECT images using a left-ventricle shape model and a deformable mesh. , 0, , .		3
110	FOUR-DIMENSIONAL RECONSTRUCTION OF GATED CARDIAC SPECT WITH ATTENUATION AND SCATTER COMPENSATION. , 2007, , .		3
111	Motion-compensated reconstruction of gated cardiac SPECT images using a deformable mesh model. , 2010, , .		3
112	Case-adaptive classification based on image retrieval for computer-aided diagnosis. , 2010, , .		3
113	An improved periodic optical flow model for cardiac gated image reconstruction. , 2011, , .		3
114	Spatial density modeling for discirminating between benign and malignant microcalcification lesions. , 2013, , .		3
115	Compensation of acquisition variations in respiratory-gated SPECT with joint statistical reconstruction. , 2015, , .		3
116	Optimizing motion correction in reconstruction of respiratory-gated spect. , 2016, , .		3
117	Time-of-year Variation in Intraocular Pressure. Journal of Glaucoma, 2021, Publish Ahead of Print, 952-962.	1.6	3
118	Image segmentation for detection of soft plaques in multidetector CT images. , 2008, , .		2
119	Cardiac perfusion defect detection using gated dynamic SPECT imaging. , 2009, , .		2
120	A periodic optical flow model for cardiac gated images. , 2009, , .		2
121	Online learning of relevance feedback from expert readers for mammogram retrieval. , 2009, , .		2
122	Image retrieval for computer-aided diagnosis of breast cancer. , 2010, , .		2
123	Effects of piecewise smoothing on cardiac SPECT reconstruction. , 2011, , .		2
124	4D reconstruction for dual cardiac-respiratory gated SPECT. , 2013, , .		2
125	Effects of Piecewise Spatial Smoothing in 4-D SPECT Reconstruction. IEEE Transactions on Nuclear Science, 2014, 61, 182-191.	2.0	2
126	Towards personalized injected patient doses for cardiac perfusion SPECT imaging: A retrospective study. , 2016, , .		2

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127	Quantitative study of image features of clustered microcalcifications in for-presentation mammograms. , 2016, , .		2
128	Approximate 4D Reconstruction of Cardiac-Gated Spect Images Using a Residual Convolutional Neural Network. , 2019, , .		2
129	Improving Diagnostic Accuracy Of Reduced-Dose Studies With Full-Dose Noise-To-Noise Learning In Cardiac Spect. , 2021, , .		2
130	Recovery of speech spectral parameters using convex set projection. , 0, , .		1
131	A reversible jump Markov chain Monte Carlo algorithm for analysis of functional neuroimages. , 0, , .		1
132	Four-dimensional gated cardiac SPECT reconstruction and evaluation study. , 2007, , .		1
133	Detectability of perfusion defect in gated dynamic cardiac SPECT images. , 2009, , .		1
134	Direct reconstruction of parametric images from cardiac gated dynamic spect data. , 2011, , .		1
135	Utility of 4D reconstruction for low-dose cardiac gated SPECT. , 2012, , .		1
136	Adaboost with dummy-variable modeling for reduction of false positives in detection of clustered microcalcifications. , 2014, , .		1
137	Joint motion correction and image reconstruction in respiratory-gated SPECT. , 2016, , .		1
138	Boosted classification of breast cancer by retrieval of cases having similar disease likelihood. , 2016, , .		1
139	4D reconstruction of cardiac SPECT using a robust spatialtemporal prior. , 2017, , .		1
140	Evaluation of a strategy to find personalized, patient-specific injected activity levels for SPECT-MPI. , 2017, , .		1
141	Locally adaptive decision in detection of clustered microcalcifications in mammograms. Physics in Medicine and Biology, 2018, 63, 045014.	3.0	1
142	Reducing the effect of false positives in classification of detected clustered microcalcifications. , 2018, , .		1
143	Data-Driven Approach For Respiratory Motion Correction In Cardiac Spect Data. , 2021, , .		1
144	Accounting For Inter-Subject Variations in Deep Learning for Reduced-Dose Studies in Cardiac SPECT. , 2021, , .		1

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145	A Feasibility Study of Motion Compensation for Cardiac Gated Spect Images Using a Cascaded Network. , 2022, , .		1
146	Physical Model of Image Formation in Multiple-Image Radiography. , 0, , .		0
147	Image sequence segmentation based on a similarity metric. , 0, , .		0
148	Motion-compensated reconstruction of tomographic image sequences. , 0, , .		0
149	Fully 4D Reconstruction of Gated Cardiac Images. , 0, , .		0
150	Phase Unwrapping Using Vector Space Projection Methods. , 0, , .		0
151	ADAPTIVE REGULARIZATION USING B-SPLINES FOR GATED DYNAMIC CARDIAC SPECT. , 2007, , .		0
152	4D reconstruction of gated cardiac SPECT using fourier harmonics. , 2008, , .		0
153	Spatio-temporal MAP reconstruction of gated cardiac images using DFT basis functions. , 2008, , .		0
154	4D reconstruction for gated cardiac SPECT using Fourier basis functions. , 2008, , .		0
155	Spatial distribution modeling for detection of clustered microcalcifications. , 2009, , .		0
156	Imaging in sitting position may reduce liver artifact in myocardium perfusion imaging. , 2009, , .		0
157	Detection of clustered microcalcifications using spatial point process modeling. , 2009, , .		0
158	Detectability of perfusion defect in gated dynamic reconstruction images using temporal B-splines. , 2010, , .		0
159	Fully 5d reconstruction of gated dynamic cardiac SPECT images using temporal B-splines. , 2010, , .		0
160	High dynamic range imaging using vector space projection. , 2010, , .		0
161	Direct parametric reconstruction of gated dynamic cardiac spect. , 2011, , .		0
162	Total-variation regularized motion estimation in a periodic image sequence. , 2011, , .		0

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163	Gated cardiac SPECT using different motion models. , 2012, , .		0
164	Effects of motion estimation methods on 4D gated cardiac SPECT reconstruction. , 2012, , .		0
165	Optical flow estimation in gated cardiac SPECT. , 2012, , .		0
166	Regularized adaptive classification based on image retrieval for clustered microcalcifications. , 2012, , .		0
167	Case-based decision strategy using outlier probability in detection of microcalcifications in mammographic lesions. , 2016, , .		0
168	Estimating the level of false positives in detection of microcalcifications in mammogram images. , 2017, , .		0
169	Reconstruction of respiratory-binned cardiac spect using a robust smoothing prior. , 2017, , .		0
170	Limiting Level of False-Positive Detections in Classification of Microcalcification Clusters in Mammograms. , 2019, , .		0
171	MESH MODELING AND ITS APPLICATIONS IN IMAGE PROCESSING. , 2004, , .		0