Marc C Robini

List of Publications by Year
in descending order

58	615	687363	610901
papers	citations	13	24
		h-index	g-index

58	58	58	556
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Design of Optimal 2-D Nongrid Sparse Arrays for Medical Ultrasound. IEEE Transactions on Biomedical Engineering, 2013, 60, 3093-3102.	4.2	92
2	2-D Ultrasound Sparse Arrays Multidepth Radiation Optimization Using Simulated Annealing and Spiral-Array Inspired Energy Functions. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 2138-2149.	3.0	62
3	Wideband 2-D Array Design Optimization With Fabrication Constraints for 3-D US Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2017, 64, 108-125.	3.0	39
4	Comparison of regularization methods for human cardiac diffusion tensor MRI. Medical Image Analysis, 2009, 13, 405-418.	11.6	32
5	Simulated annealing, acceleration techniques, and image restoration. IEEE Transactions on Image Processing, 1999, 8, 1374-1387.	9.8	31
6	Structure-adaptive sparse denoising for diffusion-tensor MRI. Medical Image Analysis, 2013, 17, 442-457.	11.6	31
7	A Stochastic Continuation Approach to Piecewise Constant Reconstruction. IEEE Transactions on Image Processing, 2007, 16, 2576-2589.	9.8	30
8	Enhancement of contrast regions in suboptimal ultrasound images with application to echocardiography. Ultrasound in Medicine and Biology, 2001, 27, 1583-1594.	1.5	28
9	From simulated annealing to stochastic continuation: a new trend in combinatorial optimization. Journal of Global Optimization, 2013, 56, 185-215.	1.8	25
10	A graph-based approach for automatic cardiac tractography. Magnetic Resonance in Medicine, 2010, 64, 1215-1229.	3.0	22
11	A multi-sensor system for the non-invasive measurement of the activity of the autonomic nervous system. Sensors and Actuators B: Chemical, 1995, 27, 461-464.	7.8	21
12	Optimization by Stochastic Continuation. SIAM Journal on Imaging Sciences, 2010, 3, 1096-1121.	2.2	18
13	Material Decomposition in X-ray Spectral CT Using Multiple Constraints in Image Domain. Journal of Nondestructive Evaluation, 2019, 38, 1.	2.4	16
14	A 3-D spatio-temporal deconvolution approach for MR perfusion in the brain. Medical Image Analysis, 2014, 18, 144-160.	11.6	14
15	Stochastic nonlinear image restoration using the wavelet transform. IEEE Transactions on Image Processing, 2003, 12, 890-905.	9.8	12
16	Generic Half-Quadratic Optimization for Image Reconstruction. SIAM Journal on Imaging Sciences, 2015, 8, 1752-1797.	2.2	12
17	A Comparative Study of Different Level Interpolations for Improving Spatial Resolution in Diffusion Tensor Imaging. IEEE Journal of Biomedical and Health Informatics, 2014, 18, 1317-1327.	6.3	10
18	Fast single image super-resolution using estimated low-frequency k-space data in MRI. Magnetic Resonance Imaging, 2017, 40, 1-11.	1.8	10

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19	Theoretically Grounded Acceleration Techniques for Simulated Annealing. Intelligent Systems Reference Library, 2013, , 311-335.	1.2	9
20	Towards In Vivo Diffusion Tensor MRI on Human Heart using Edge-Preserving Regularization. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6008-11.	0.5	8
21	Robustness of spatio€temporal regularization in perfusion MRI deconvolution: An application to acute ischemic stroke. Magnetic Resonance in Medicine, 2017, 78, 1981-1990.	3.0	8
22	Edge-preserving reconstruction with contour-line smoothing and non-quadratic data-fidelity. Inverse Problems and Imaging, 2013, 7, 1331-1366.	1.1	7
23	Magnetic resonance image reconstruction using analytic image representation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 571, 73-76.	1.6	6
24	Mitotic spindle asymmetry in rodents and primates: 2D vs. 3D measurement methodologies. Frontiers in Cellular Neuroscience, 2015, 9, 33.	3.7	6
25	Speed-up of acoustic simulation techniques for 2D sparse array optimization by simulated annealing. , 2015, , .		6
26	Inexact Half-Quadratic Optimization for Linear Inverse Problems. SIAM Journal on Imaging Sciences, 2018, 11, 1078-1133.	2.2	6
27	A global approach to cardiac tractography. , 2008, , .		5
28	Variable-size elements in 2D sparse arrays for 3D medical ultrasound. , 2013, , .		5
29	Realistic acoustic simulation of 2-D probe elements in simulated annealing sparse array optimization. , 2014, , .		4
30	ON THE CONVERGENCE OF METROPOLIS-TYPE RELAXATION AND ANNEALING WITH CONSTRAINTS. Probability in the Engineering and Informational Sciences, 2002, 16, 427-452.	0.8	3
31	Radiographic Inspection of Thick Metal Components, Part I: Fitting the Standard Linear Image Formation Model. , 2006, , .		3
32	Radiographic Testing of Anomalies in Thick Metal Components: Fitting the Standard Line-Integral Model. IEEE Transactions on Nuclear Science, 2007, 54, 1285-1297.	2.0	3
33	A neighborhood-based probabilistic approach for fiber tracking in human cardiac DTI. , 2012, , .		3
34	Spiral array inspired multi-depth cost function for 2D sparse array optimization. , 2015, , .		3
35	Validation of optimal 2D sparse arrays in focused mode: Phantom experiments. , 2017, , .		3
36	A stochastic approach to full inverse treatment planning for charged-particle therapy. Journal of Global Optimization, 2020, 77, 853-893.	1.8	3

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37	On simulated annealing with temperature-dependent energy and temperature-dependent communication. Statistics and Probability Letters, 2011, 81, 915-920.	0.7	2
38	Cardiac Fiber Unfolding by Semidefinite Programming. IEEE Transactions on Biomedical Engineering, 2015, 62, 582-592.	4.2	2
39	Inexact half-quadratic optimization for image reconstruction. , 2016, , .		2
40	Comparison of different optimized irregular sparse 2D ultrasound arrays. , 2016, , .		2
41	A singular K-space model for fast reconstruction of magnetic resonance images from undersampled data. Medical and Biological Engineering and Computing, 2018, 56, 1211-1225.	2.8	2
42	Radiographic Inspection of Thick Metal Components, Part II: a New Stochastic Approach to 3-D Reconstruction. , 2006, , .		1
43	Analysis of Cardiac Diffusion Tensor Magnetic Resonance Images Using Sparse Representation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4516-9.	0.5	1
44	Improved global cardiac tractography with simulated annealing. , 2009, , .		1
45	DT-MRI interpolation: At what level?. , 2012, , .		1
46	Optimization of free-moving elements in 2D ultrasound sparse arrays. , 2014, , .		1
47	A stochastic framework for spot-scanning particle therapy. , 2016, 2016, 2578-2581.		1
48	Interest of non-negativity constraint in perfusion DSC-MRI deconvolution for acute stroke. , 2016, , .		1
49	Global diffusion tractography by simulated annealing. IEEE Transactions on Biomedical Engineering, 2016, 64, 1-1.	4.2	1
50	Cardiac Fibre Trace Clustering for the Interpretation of the Human Heart Architecture. Lecture Notes in Computer Science, 2009, , 39-48.	1.3	1
51	Stochastic Continuation - Opening New Horizons to Solving Difficult Optimization Problems. , 2007, , .		0
52	Towards a simplified cardiac fiber architecture â€" Multiscale fiber merging. , 2016, , .		0
53	Image reconstruction by nonconvex inexact half-quadratic optimization. , 2017, , .		0
54	Probabilistic Atlas Construction of Human Cardiac Fiber Structure in DT-MRI. , 2018, , .		0

#	Article	IF	Citations
55	Simultaneous Reconstruction and Denoising of Spectral CT Images. , 2018, , .		0
56	Nasal Mesh Unfolding â€" An Approach to Obtaining 2-D Skin Templates from 3-D Nose Models. Lecture Notes in Computer Science, 2018, , 163-170.	1.3	0
57	Improved Image Reconstruction Using Multi-Energy Information in Spectral Photon-Counting CT. IEEE Access, 2021, 9, 97981-97989.	4.2	0
58	Edge-Preserving Image Reconstruction with Wavelet-Domain Edge Continuation. Lecture Notes in Computer Science, 2009, , 13-22.	1.3	0