Rongjie Lai

List of Publications by Year
in descending order

32	762	759233	580821
papers	citations	12	25
		h-index	g-index

32	32	32	623
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Compressed modes for variational problems in mathematics and physics. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18368-18373.	7.1	152
2	A Splitting Method for Orthogonality Constrained Problems. Journal of Scientific Computing, 2014, 58, 431-449.	2.3	125
3	Robust Surface Reconstruction via Laplace-Beltrami Eigen-Projection and Boundary Deformation. IEEE Transactions on Medical Imaging, 2010, 29, 2009-2022.	8.9	47
4	A local mesh method for solving PDEs on point clouds. Inverse Problems and Imaging, 2013, 7, 737-755.	1.1	38
5	Latent fingerprint segmentation with adaptive total variation model. , 2012, , .		36
6	Metric Optimization for Surface Analysis in the Laplace-Beltrami Embedding Space. IEEE Transactions on Medical Imaging, 2014, 33, 1447-1463.	8.9	35
7	Folding-Free Global Conformal Mapping for Genus-0 Surfaces by Harmonic Energy Minimization. Journal of Scientific Computing, 2014, 58, 705-725.	2.3	32
8	A framework for intrinsic image processing on surfaces. Computer Vision and Image Understanding, 2011, 115, 1647-1661.	4.7	30
9	Cortical Surface Reconstruction via Unified Reeb Analysis of Geometric and Topological Outliers in Magnetic Resonance Images. IEEE Transactions on Medical Imaging, 2013, 32, 511-530.	8.9	27
10	Laplace-Beltrami nodal counts: A new signature for 3D shape analysis. , 2009, 2009, 694-697.		25
11	Compressed plane waves yield a compactly supported multiresolution basis for the Laplace operator. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1691-1696.	7.1	25
12	Conformal Metric Optimization on Surface (CMOS) for Deformation and Mapping in Laplace-Beltrami Embedding Space. Lecture Notes in Computer Science, 2011, 14, 327-334.	1.3	21
13	Metric-induced optimal embedding for intrinsic 3D shape analysis. , 2010, , .		18
14	Latent fingerprint detection and segmentation with a directional total variation model. , 2012, , .		18
15	Exact Reconstruction of Euclidean Distance Geometry Problem Using Low-Rank Matrix Completion. IEEE Transactions on Information Theory, 2019, 65, 3124-3144.	2.4	17
16	Maximization of Laplaceâˆ’Beltrami eigenvalues on closed Riemannian surfaces. ESAIM - Control, Optimisation and Calculus of Variations, 2017, 23, 685-720.	1.3	14
17	Point Cloud Discretization of Fokker--Planck Operators for Committor Functions. Multiscale Modeling and Simulation, 2018, 16, 710-726.	1.6	13
18	Automated corpus callosum extraction via Laplace-Beltrami nodal parcellation and intrinsic geodesic curvature flows on surfaces. , 2011, , .		12

#	Article	IF	Citations
19	Triangulated Surface Denoising using High Order Regularization with Dynamic Weights. SIAM Journal of Scientific Computing, 2019, 41, B1-B26.	2.8	12
20	Manifold Based Low-Rank Regularization for Image Restoration and Semi-Supervised Learning. Journal of Scientific Computing, 2018, 74, 1241-1263.	2.3	11
21	Multiscale Nonrigid Point Cloud Registration Using Rotation-Invariant Sliced-Wasserstein Distance via Laplace--Beltrami Eigenmap. SIAM Journal on Imaging Sciences, 2017, 10, 449-483.	2.2	9
22	Global Optimization with Orthogonality Constraints via Stochastic Diffusion on Manifold. Journal of Scientific Computing, 2019, 80, 1139-1170.	2.3	9
23	Generalized unnormalized optimal transport and its fast algorithms. Journal of Computational Physics, 2021, 436, 110041.	3.8	9
24	Density matrix minimization with ${\ell}_1$ regularization. Communications in Mathematical Sciences, 2015, 13, 2097-2117.	1.0	9
25	Localized density matrix minimization and linear-scaling algorithms. Journal of Computational Physics, 2016, 315, 194-210.	3.8	5
26	Efficient and Robust Shape Correspondence via Sparsity-Enforced Quadratic Assignment. , 2020, , .		4
27	A Narrow-Band Approach for Approximating the Laplace-Beltrami Spectrum of 3D Shapes. , 2010, , .		3
28	Nonisometric Surface Registration via Conformal Laplace–Beltrami Basis Pursuit. Journal of Scientific Computing, 2021, 86, 1.	2.3	2
29	Low-rank matrix completion in a general non-orthogonal basis. Linear Algebra and Its Applications, 2021, 625, 81-112.	0.9	1
30	Solving PDEs on manifolds represented as point clouds and applications. Handbook of Numerical Analysis, 2019, 20, 315-349.	1.8	1
31	Parallel Transport Convolution: Deformable Convolutional Networks on Manifold-Structured Data. SIAM Journal on Imaging Sciences, 2022, 15, 367-386.	2.2	1
32	NPTC-net: Narrow-Band Parallel Transport Convolutional Neural Networks on Point Clouds. Journal of Scientific Computing, 2022, 90, 1.	2.3	1