Lok Ming Lui

List of Publications by Year
in descending order

80 papers	1,378 citations	361413 20 h-index	395702 33 g-index
81 all docs	81 docs citations	81 times ranked	521 citing authors

#	ARTICLE	IF	CITATIONS
1	FLASH: Fast Landmark Aligned Spherical Harmonic Parameterization for Genus-0 Closed Brain Surfaces. SIAM Journal on Imaging Sciences, 2015, 8, 67-94.	2.2	86
2	Brain Surface Conformal Parameterization Using Riemann Surface Structure. IEEE Transactions on Medical Imaging, 2007, 26, 853-865.	8.9	82
3	Teichmuller Mapping (T-Map) and Its Applications to Landmark Matching Registration. SIAM Journal on Imaging Sciences, 2014, 7, 391-426.	2.2	64
4	Optimization of Surface Registrations Using Beltrami Holomorphic Flow. Journal of Scientific Computing, 2012, 50, 557-585.	2.3	61
5	Texture Map and Video Compression Using Beltrami Representation. SIAM Journal on Imaging Sciences, 2013, 6, 1880-1902.	2.2	60
6	Landmark- and Intensity-Based Registration with Large Deformations via Quasi-conformal Maps. SIAM Journal on Imaging Sciences, 2014, 7, 2364-2392.	2.2	55
7	TEMPO: Feature-Endowed Teichmüller Extremal Mappings of Point Clouds. SIAM Journal on Imaging Sciences, 2016, 9, 1922-1962.	2.2	48
8	Optimized Conformal Surface Registration with Shape-based Landmark Matching. SIAM Journal on Imaging Sciences, 2010, 3, 52-78.	2.2	47
9	Computing quasiconformal maps using an auxiliary metric and discrete curvature flow. Numerische Mathematik, 2012, 121, 671-703.	1.9	44
10	Fast Disk Conformal Parameterization of Simply-Connected Open Surfaces. Journal of Scientific Computing, 2015, 65, 1065-1090.	2.3	44
11	Landmark constrained genus zero surface conformal mapping and its application to brain mapping research. Applied Numerical Mathematics, 2007, 57, 847-858.	2.1	39
12	Restoration of atmospheric turbulence-distorted images via RPCA and quasiconformal maps. Inverse Problems, 2019, 35, 074002.	2.0	38
13	Folding-Free Global Conformal Mapping for Genus-0 Surfaces by Harmonic Energy Minimization. Journal of Scientific Computing, 2014, 58, 705-725.	2.3	32
14	A linear formulation for disk conformal parameterization of simply-connected open surfaces. Advances in Computational Mathematics, 2018, 44, 87-114.	1.6	31
15	Spherical Conformal Parameterization of Genus-0 Point Clouds for Meshing. SIAM Journal on Imaging Sciences, 2016, 9, 1582-1618.	2.2	28
16	Landmark-Matching Transformation with Large Deformation Via n-dimensional Quasi-conformal Maps. Journal of Scientific Computing, 2016, 67, 926-954.	2.3	28
17	Parallelizable Global Conformal Parameterization of Simply-Connected Surfaces via Partial Welding. SIAM Journal on Imaging Sciences, 2020, 13, 1049-1083.	2.2	27
18	Optimization of Brain Conformal Mapping with Landmarks. Lecture Notes in Computer Science, 2005, 8, 675-683.	1.3	26

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19	Tooth morphometry using quasi-conformal theory. Pattern Recognition, 2020, 99, 107064.	8.1	25
20	Shape-Based Diffeomorphic Registration on Hippocampal Surfaces Using Beltrami Holomorphic Flow. Lecture Notes in Computer Science, 2010, 13, 323-330.	1.3	24
21	Computing Extremal Teichmüller Map of Multiply-Connected Domains Via Beltrami Holomorphic Flow. Journal of Scientific Computing, 2014, 60, 249-275.	2.3	21
22	Geometric Registration of High-Genus Surfaces. SIAM Journal on Imaging Sciences, 2014, 7, 337-365.	2.2	20
23	Efficient feature-based image registration by mapping sparsified surfaces. Journal of Visual Communication and Image Representation, 2018, 55, 561-571.	2.8	19
24	Variational Method on Riemann Surfaces using Conformal Parameterization and its Applications to Image Processing. Methods and Applications of Analysis, 2008, 15, 513-538.	0.5	18
25	Detection of shape deformities using Yamabe flow and Beltrami coefficients. Inverse Problems and Imaging, 2010, 4, 311-333.	1.1	17
26	Conformal mapping of carotid vessel wall and plaque thickness measured from 3D ultrasound images. Medical and Biological Engineering and Computing, 2017, 55, 2183-2195.	2.8	16
27	Shape Analysis of Vestibular Systems in Adolescent Idiopathic Scoliosis Using Geodesic Spectra. Lecture Notes in Computer Science, 2010, 13, 538-546.	1.3	16
28	Convergence of an iterative algorithm for Teichmüller maps via harmonic energy optimization. Mathematics of Computation, 2015, 84, 2823-2842.	2.1	15
29	Quasi-conformal statistical shape analysis of hippocampal surfaces for Alzheimer×³s disease analysis. Neurocomputing, 2016, 175, 177-187.	5.9	15
30	Solving PDEs on Manifolds with Global Conformal Parametriazation. Lecture Notes in Computer Science, 2005, , 307-319.	1.3	15
31	Shape Analysis by Conformal Modules. Methods and Applications of Analysis, 2008, 15, 539-556.	0.5	15
32	Image Retargeting via Beltrami Representation. IEEE Transactions on Image Processing, 2018, 27, 5787-5801.	9.8	14
33	Shape Analysis of Planar Multiply-Connected Objects Using Conformal Welding. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 1384-1401.	13.9	13
34	QCMC: quasi-conformal parameterizations for multiply-connected domains. Advances in Computational Mathematics, 2016, 42, 279-312.	1.6	13
35	Variational Models for Joint Subsampling and Reconstruction of Turbulence-Degraded Images. Journal of Scientific Computing, 2019, 78, 1488-1525.	2.3	13
36	Brain anatomical feature detection by solving partial differential equations on general manifolds. Discrete and Continuous Dynamical Systems - Series B, 2007, 7, 605-618.	0.9	13

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37	A Splitting Method for Diffeomorphism Optimization Problem Using Beltrami Coefficients. Journal of Scientific Computing, 2015, 63, 573-611.	2.3	12
38	Topology-Preserving Image Segmentation by Beltrami Representation of Shapes. Journal of Mathematical Imaging and Vision, 2018, 60, 401-421.	1.3	12
39	Subsampled turbulence removal network. Mathematics, Computation and Geometry of Data, 2021, 1, 1-33.	0.6	12
40	Landmark constrained genus-one surface Teichmüller map applied to surface registration in medical imaging. Medical Image Analysis, 2015, 25, 45-55.	11.6	10
41	ICA-based feature extraction and automatic classification of AD-related MRI data. , 2010, , .		9
42	Landmark constrained registration of high-genus surfaces applied to vestibular system morphometry. Computerized Medical Imaging and Graphics, 2015, 44, 1-12.	5.8	9
43	Shape Analysis of Planar Objects with Arbitrary Topologies Using Conformal Geometry. Lecture Notes in Computer Science, 2010, , 672-686.	1.3	9
44	Shape analysis via inconsistent surface registration. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200147.	2.1	9
45	Computing Quasi-Conformal Folds. SIAM Journal on Imaging Sciences, 2019, 12, 1392-1424.	2.2	8
46	Topology- and convexity-preserving image segmentation based on image registration. Applied Mathematical Modelling, 2021, 100, 218-239.	4.2	8
47	Optimized quasiconformal parameterization with user-defined area distortions. Communications in Mathematical Sciences, 2017, 15, 2027-2054.	1.0	8
48	Compression of surface registrations using Beltrami coefficients. , 2010, , .		7
49	Multiscale Representation of Deformation via Beltrami Coefficients. Multiscale Modeling and Simulation, 2017, 15, 864-891.	1.6	7
50	Optimized Conformal Parameterization of Cortical Surfaces Using Shape Based Matching of Landmark Curves. Lecture Notes in Computer Science, 2008, 11, 494-501.	1.3	7
51	A conformal approach for surface inpainting. Inverse Problems and Imaging, 2013, 7, 863-884.	1.1	7
52	Free-Boundary Conformal Parameterization of Point Clouds. Journal of Scientific Computing, 2022, 90, 1.	2.3	7
53	Automatic characteristic-calibrated registration (ACC-REG): Hippocampal surface registration using eigen-graphs. Pattern Recognition, 2020, 103, 107142.	8.1	6
54	Inconsistent Surface Registration via Optimization of Mapping Distortions. Journal of Scientific Computing, 2020, 83, 1.	2.3	6

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55	Euclidean Geodesic Loops on High-Genus Surfaces Applied to the Morphometry of Vestibular Systems. Lecture Notes in Computer Science, 2011, 14, 384-392.	1.3	6
56	Image and surface registration. Handbook of Numerical Analysis, 2019, 20, 579-611.	1.8	6
57	Subdivision connectivity remeshing via Teichmüller extremal map. Inverse Problems and Imaging, 2017, 11, 825-855.	1.1	6
58	Detection of n-dimensional shape deformities using n-dimensional quasi-conformal maps. Geometry Imaging and Computing, 2014, 1, 395-415.	0.8	6
59	Hippocampal Surface Analysis Using Spherical Harmonic Function Applied to Surface Conformal Mapping. , 2006, , .		5
60	Intrinsic Feature Extraction on Hippocampal Surfaces and Its Applications. SIAM Journal on Imaging Sciences, 2012, 5, 746-768.	2.2	5
61	Surface Registration by Optimization in Constrained Diffeomorphism Space. , 2014, , .		5
62	Automatic registration of vestibular systems with exact landmark correspondence. Graphical Models, 2014, 76, 532-541.	2.4	5
63	Automatic Landmark Tracking and its Application to the Optimization of Brain Conformal Mapping. , 0, , .		4
64	Topology-Preserving 3D Image Segmentation Based on Hyperelastic Regularization. Journal of Scientific Computing, 2021, 87, 1.	2.3	4
65	Quasi-Conformal Hybrid Multi-modality Image Registration and its Application to Medical Image Fusion. Lecture Notes in Computer Science, 2015, , 809-818.	1.3	4
66	Computation of curvatures using conformal parameterization. Communications in Information and Systems, 2008, 8, 1-16.	0.5	4
67	Genus-One Surface Registration via Teichmüller Extremal Mapping. Lecture Notes in Computer Science, 2014, 17, 25-32.	1.3	4
68	A Unifying Framework for n-Dimensional Quasi-Conformal Mappings. SIAM Journal on Imaging Sciences, 2022, 15, 960-988.	2.2	4
69	Conformal-Based Surface Morphing and Multi-Scale Representation. Axioms, 2014, 3, 222-243.	1.9	3
70	PCBC: Quasiconformality of Point Cloud Mappings. Journal of Scientific Computing, 2018, 77, 597-633.	2.3	3
71	A Landmark-Based Brain Conformal Parametrization with Automatic Landmark Tracking Technique. Lecture Notes in Computer Science, 2006, 9, 308-315.	1.3	3
72	Quasiconformal model with CNN features for large deformation image registration. Inverse Problems and Imaging, 2022, 16, 1019.	1.1	3

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73	Hippocampal surface discrimination via invariant descriptors of spherical conformals maps. , 2007, , .		1
74	Parallelizable inpainting and refinement of diffeomorphisms using Beltrami holomorphic flow. , 2011, , .		1
75	Decomposition of Longitudinal Deformations via Beltrami Descriptors. Journal of Scientific Computing, 2021, 89, 1.	2.3	1
76	Automatic Landmark Tracking Applied to Optimize Brain Conformal Mapping. , 0, , .		0
77	Hookeâ€™s Optimization for 3D triangular mesh. Geometry Imaging and Computing, 2015, 2, 109-131.	0.8	0
78	Erratum to â€œDetection of n-dimensional shape deformities using n-dimensional quasi-conformal mapsâ€•[<i>Geometry, Imaging and Computing</i> 1 (2014) 395â€"415]. Geometry Imaging and Computing, 2015, 2, 1-1.	0.8	0
79	Subsampled turbulence removal network. Mathematics, Computation and Geometry of Data, 2020, 1, 1-33.	0.6	0
80	Comparison between variational optimal mass transportation and Lie advection. Mathematics, Computation and Geometry of Data, 2020, 1, 99-130.	0.6	0