

Michael Bronstein

List of Publications by Year in descending order

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102
papers

12,122
citations

125106

35
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90395

73
g-index

110
all docs

110
docs citations

110
times ranked

7856
citing authors

#	ARTICLE	IF	CITATIONS
1	Matching 3D Facial Shape to Demographic Properties by Geometric Metric Learning: A Part-Based Approach. IEEE Transactions on Biometrics, Behavior, and Identity Science, 2022, 4, 163-172.	3.8	4
2	Interaction data are identifiable even across long periods of time. Nature Communications, 2022, 13, 313.	5.8	12
3	Multi-Scale Part-Based Syndrome Classification of 3D Facial Images. IEEE Access, 2022, 10, 23450-23462.	2.6	3
4	Toward understanding the communication in sperm whales. IScience, 2022, 25, 104393.	1.9	7
5	Nonisometric Surface Registration via Conformal Laplace-Beltrami Basis Pursuit. Journal of Scientific Computing, 2021, 86, 1.	1.1	2
6	Unsupervised Diffeomorphic Surface Registration and Non-linear Modelling. Lecture Notes in Computer Science, 2021, , 118-128.	1.0	1
7	Utilizing graph machine learning within drug discovery and development. Briefings in Bioinformatics, 2021, 22, .	3.2	90
8	Orthogonalized Fourier Polynomials for Signal Approximation and Transfer. Computer Graphics Forum, 2021, 40, 435-447.	1.8	5
9	Automated landmarking for palatal shape analysis using geometric deep learning. Orthodontics and Craniofacial Research, 2021, , .	1.2	3
10	Predicting anticancer hyperfoods with graph convolutional networks. Human Genomics, 2021, 15, 33.	1.4	9
11	Shape My Face: Registering 3D Face Scans by Surface-to-Surface Translation. International Journal of Computer Vision, 2021, 129, 2680-2713.	10.9	12
12	Exploring palatal and dental shape variation with 3D shape analysis and geometric deep learning. Orthodontics and Craniofacial Research, 2021, 24, 134-143.	1.2	12
13	GReS: Workshop on Graph Neural Networks for Recommendation and Search. , 2021, , .		0
14	Fast end-to-end learning on protein surfaces. , 2021, , .		33
15	Intel® RealSense™ SR300 Coded Light Depth Camera. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 42, 2333-2345.	9.7	55
16	Deciphering interaction fingerprints from protein molecular surfaces using geometric deep learning. Nature Methods, 2020, 17, 184-192.	9.0	371
17	Weakly-Supervised Mesh-Convolutional Hand Reconstruction in the Wild. , 2020, , .		113
18	Geometrically Principled Connections in Graph Neural Networks. , 2020, , .		11

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19	Graph Signal Processing for Machine Learning: A Review and New Perspectives. IEEE Signal Processing Magazine, 2020, 37, 117-127.	4.6	77
20	Clustered Dynamic Graph CNN for Biometric 3D Hand Shape Recognition. , 2020, , .		0
21	Latent-Graph Learning for Disease Prediction. Lecture Notes in Computer Science, 2020, , 643-653.	1.0	18
22	Dynamic Graph CNN for Learning on Point Clouds. ACM Transactions on Graphics, 2019, 38, 1-12.	4.9	2,437
23	Deep Machine Learning Techniques for the Detection and Classification of Sperm Whale Bioacoustics. Scientific Reports, 2019, 9, 12588.	1.6	57
24	Functional Maps Representation On Product Manifolds. Computer Graphics Forum, 2019, 38, 678-689.	1.8	5
25	SpiralNet++: A Fast and Highly Efficient Mesh Convolution Operator. , 2019, , .		80
26	Neural 3D Morphable Models: Spiral Convolutional Networks for 3D Shape Representation Learning and Generation. , 2019, , .		92
27	CayleyNets: Graph Convolutional Neural Networks With Complex Rational Spectral Filters. IEEE Transactions on Signal Processing, 2019, 67, 97-109.	3.2	324
28	Localized Manifold Harmonics for Spectral Shape Analysis. Computer Graphics Forum, 2018, 37, 20-34.	1.8	38
29	Graph Neural Networks for IceCube Signal Classification. , 2018, , .		33
30	Partial Single- and Multishape Dense Correspondence Using Functional Maps. Handbook of Numerical Analysis, 2018, 19, 55-90.	0.9	2
31	Partial Functional Correspondence. Computer Graphics Forum, 2017, 36, 222-236.	1.8	147
32	Fully Spectral Partial Shape Matching. Computer Graphics Forum, 2017, 36, 247-258.	1.8	69
33	Geometric Deep Learning on Graphs and Manifolds Using Mixture Model CNNs. , 2017, , .		883
34	Geometric Deep Learning: Going beyond Euclidean data. IEEE Signal Processing Magazine, 2017, 34, 18-42.	4.6	1,846
35	Computing and processing correspondences with functional maps. , 2017, , .		33
36	Efficient Deformable Shape Correspondence via Kernel Matching. , 2017, , .		54

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37	Matching Deformable Objects in Clutter. , 2016, , .		42
38	Non-Rigid Puzzles. Computer Graphics Forum, 2016, 35, 135-143.	1.8	53
39	Computing and processing correspondences with functional maps. , 2016, , .		30
40	MADMM: A Generic Algorithm for Non-smooth Optimization on Manifolds. Lecture Notes in Computer Science, 2016, , 680-696.	1.0	53
41	Sparse Models for Intrinsic Shape Correspondence. Mathematics and Visualization, 2016, , 211-230.	0.4	1
42	Coupled Functional Maps. , 2016, , .		34
43	Shape Analysis with Anisotropic Windowed Fourier Transform. , 2016, , .		11
44	Geodesic Convolutional Neural Networks on Riemannian Manifolds. , 2015, , .		405
45	Multimodal Manifold Analysis by Simultaneous Diagonalization of Laplacians. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2015, 37, 2505-2517.	9.7	48
46	Manifold Intrinsic Similarity. , 2015, , 1859-1908.		0
47	Equi-affine Invariant Geometry for Shape Analysis. Journal of Mathematical Imaging and Vision, 2014, 50, 144-163.	0.8	14
48	Group-Valued Regularization for Motion Segmentation of Articulated Shapes. Mathematics and Visualization, 2013, , 263-281.	0.4	1
49	Sparse Modeling of Intrinsic Correspondences. Computer Graphics Forum, 2013, 32, 459-468.	1.8	79
50	Coupled quasi-harmonic bases. Computer Graphics Forum, 2013, 32, 439-448.	1.8	133
51	Feature-Based Methods in 3D Shape Analysis. , 2012, , 185-219.		8
52	Discrete Minimum Distortion Correspondence Problems for Non-rigid Shape Matching. Lecture Notes in Computer Science, 2012, , 580-591.	1.0	20
53	A Correspondence-Less Approach to Matching of Deformable Shapes. Lecture Notes in Computer Science, 2012, , 592-603.	1.0	11
54	Group-Valued Regularization Framework for Motion Segmentation of Dynamic Non-rigid Shapes. Lecture Notes in Computer Science, 2012, , 725-736.	1.0	10

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55	Putting the Pieces Together: Regularized Multi-part Shape Matching. Lecture Notes in Computer Science, 2012, , 1-11.	1.0	10
56	Group-Valued Regularization for Analysis of Articulated Motion. Lecture Notes in Computer Science, 2012, , 52-62.	1.0	10
57	Shape Palindromes: Analysis of Intrinsic Symmetries in 2D Articulated Shapes. Lecture Notes in Computer Science, 2012, , 665-676.	1.0	3
58	Affine-invariant geodesic geometry of deformable 3D shapes. Computers and Graphics, 2011, 35, 692-697.	1.4	26
59	Shape google. ACM Transactions on Graphics, 2011, 30, 1-20.	4.9	466
60	Affine-invariant diffusion geometry for the analysis of deformable 3D shapes. , 2011, , .		22
61	Manifold Intrinsic Similarity. , 2011, , 1403-1452.		3
62	A Gromov-Hausdorff Framework with Diffusion Geometry for Topologically-Robust Non-rigid Shape Matching. International Journal of Computer Vision, 2010, 89, 266-286.	10.9	203
63	Full and Partial Symmetries of Non-rigid Shapes. International Journal of Computer Vision, 2010, 89, 18-39.	10.9	83
64	Nonlinear Dimensionality Reduction by Topologically Constrained Isometric Embedding. International Journal of Computer Vision, 2010, 89, 56-68.	10.9	54
65	Scale-invariant heat kernel signatures for non-rigid shape recognition. , 2010, , .		386
66	Data fusion through cross-modality metric learning using similarity-sensitive hashing. , 2010, , .		332
67	Intrinsic Regularity Detection in 3D Geometry. Lecture Notes in Computer Science, 2010, , 398-410.	1.0	22
68	3D-color video camera. , 2009, , .		10
69	Numerical Geometry of Non-Rigid Shapes. Texts and Monographs in Computer Science, 2009, , .	0.7	204
70	Partial Similarity of Objects, or How to Compare a Centaur to a Horse. International Journal of Computer Vision, 2009, 84, 163-183.	10.9	83
71	Topology-Invariant Similarity of Nonrigid Shapes. International Journal of Computer Vision, 2009, 81, 281-301.	10.9	47
72	Shape Google: a computer vision approach to isometry invariant shape retrieval. , 2009, , .		75

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73	On reconstruction of non-rigid shapes with intrinsic regularization. , 2009, , .		6
74	Partial Similarity of Shapes Using a Statistical Significance Measure. IPSJ Transactions on Computer Vision and Applications, 2009, 1, 105-114.	4.4	9
75	Analysis of Two-Dimensional Non-Rigid Shapes. International Journal of Computer Vision, 2008, 78, 67-88.	10.9	89
76	Not only size matters: Regularized partial matching of nonrigid shapes. , 2008, , .		19
77	Parallel algorithms for approximation of distance maps on parametric surfaces. ACM Transactions on Graphics, 2008, 27, 1-16.	4.9	98
78	Topologically Constrained Isometric Embedding. Computational Imaging and Vision, 2008, , 243-262.	0.6	6
79	Regularized Partial Matching of Rigid Shapes. Lecture Notes in Computer Science, 2008, , 143-154.	1.0	22
80	Expression-invariant 3D face recognition. SPIE Newsroom, 2008, , .	0.1	0
81	Expression-Invariant Representations of Faces. IEEE Transactions on Image Processing, 2007, 16, 188-197.	6.0	122
82	Symmetries of non-rigid shapes. , 2007, , .		46
83	Calculus of Nonrigid Surfaces for Geometry and Texture Manipulation. IEEE Transactions on Visualization and Computer Graphics, 2007, 13, 902-913.	2.9	95
84	Rock, Paper, and Scissors: extrinsic vs. intrinsic similarity of non-rigid shapes. , 2007, , .		18
85	Paretian Similarity for Partial Comparison of Non-rigid Objects. , 2007, , 264-275.		1
86	Story of Cinderella. , 2007, , 119-131.		0
87	Efficient Computation of Isometry-Invariant Distances Between Surfaces. SIAM Journal of Scientific Computing, 2006, 28, 1812-1836.	1.3	162
88	Multigrid multidimensional scaling. Numerical Linear Algebra With Applications, 2006, 13, 149-171.	0.9	73
89	Generalized multidimensional scaling: A framework for isometry-invariant partial surface matching. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1168-1172.	3.3	413
90	Sparse ICA for blind separation of transmitted and reflected images. International Journal of Imaging Systems and Technology, 2005, 15, 84-91.	2.7	93

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91	Three-Dimensional Face Recognition. International Journal of Computer Vision, 2005, 64, 5-30.	10.9	429
92	Blind deconvolution of images using optimal sparse representations. IEEE Transactions on Image Processing, 2005, 14, 726-736.	6.0	78
93	Isometric Embedding of Facial Surfaces into \mathbb{S}^m . Lecture Notes in Computer Science, 2005, , 622-631.	1.0	19
94	Blind Source Separation Using the Block-Coordinate Relative Newton Method. Lecture Notes in Computer Science, 2004, , 406-413.	1.0	0
95	Blind source separation using block-coordinate relative Newton method. Signal Processing, 2004, 84, 1447-1459.	2.1	8
96	Optimal Sparse Representations for Blind Deconvolution of Images. Lecture Notes in Computer Science, 2004, , 500-507.	1.0	0
97	Blind Deconvolution Using the Relative Newton Method. Lecture Notes in Computer Science, 2004, , 554-561.	1.0	4
98	Face Recognition from Facial Surface Metric. Lecture Notes in Computer Science, 2004, , 225-237.	1.0	27
99	Expression-Invariant 3D Face Recognition. Lecture Notes in Computer Science, 2003, , 62-70.	1.0	177
100	Separation of reflections via sparse ICA. , 2003, , .		13
101	Reconstruction in diffraction ultrasound tomography using nonuniform FFT. IEEE Transactions on Medical Imaging, 2002, 21, 1395-1401.	5.4	92
102	Biometrics was no match for hair-raising tricks. Nature, 2002, 420, 739-739.	13.7	4