

Craig Gotsman

List of Publications by Year in descending order

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122
papers

5,029
citations

117625

34
h-index

128289

60
g-index

126
all docs

126
docs citations

126
times ranked

2192
citing authors

#	ARTICLE	IF	CITATIONS
1	Left atrial adaptation in ischemic heart disease: insights from a cardiovascular magnetic resonance study. International Journal of Cardiovascular Imaging, 2022, , 1.	1.5	1
2	A DIRECT-type global optimization algorithm for image registration. Journal of Global Optimization, 2021, 79, 431-445.	1.8	3
3	On Landmark Distances in Polygons. Computer Graphics Forum, 2021, 40, 275-287.	3.0	0
4	Global optimization for image registration. AIP Conference Proceedings, 2019, , .	0.4	1
5	Efficient Path Generation with Reduced Coordinates. Computer Graphics Forum, 2018, 37, 37-48.	3.0	9
6	Path planning with divergence-based distance functions. Computer Aided Geometric Design, 2018, 66, 52-74.	1.2	6
7	Approximating Planar Conformal Maps Using Regular Polygonal Meshes. Computer Graphics Forum, 2017, 36, 629-642.	3.0	2
8	Generalized As-Similar-As-Possible Warping with Applications in Digital Photography. Computer Graphics Forum, 2016, 35, 81-92.	3.0	5
9	Complex Transfinite Barycentric Mappings with Similarity Kernels. Computer Graphics Forum, 2016, 35, 41-53.	3.0	5
10	On pseudo-harmonic barycentric coordinates. Computer Aided Geometric Design, 2016, 44, 15-35.	1.2	6
11	Single breath-hold 3D measurement of left atrial volume using compressed sensing cardiovascular magnetic resonance and a non-model-based reconstruction approach. Journal of Cardiovascular Magnetic Resonance, 2015, 17, 47.	3.3	22
12	Smooth Rotation Enhanced As-Rigid-As-Possible Mesh Animation. IEEE Transactions on Visualization and Computer Graphics, 2015, 21, 264-277.	4.4	56
13	On Linear Spaces of Polyhedral Meshes. IEEE Transactions on Visualization and Computer Graphics, 2015, 21, 652-662.	4.4	5
14	Interactive Planarization and Optimization of 3D Meshes. Computer Graphics Forum, 2013, 32, 152-163.	3.0	23
15	D-Snake: Image Registration by As-Similar-As-Possible Template Deformation. IEEE Transactions on Visualization and Computer Graphics, 2013, 19, 331-343.	4.4	9
16	ArtiSketch: A System for Articulated Sketch Modeling. Computer Graphics Forum, 2013, 32, 235-244.	3.0	14
17	Gaze correction for home video conferencing. ACM Transactions on Graphics, 2012, 31, 1-6.	7.2	83
18	Biharmonic Coordinates. Computer Graphics Forum, 2012, 31, 2409-2422.	3.0	34

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19	Parallel Blue-noise Sampling by Constrained Farthest Point Optimization. Computer Graphics Forum, 2012, 31, 1775-1785.	3.0	8
20	Blue noise sampling of surfaces. Computers and Graphics, 2012, 36, 232-240.	2.5	27
21	High-quality passive facial performance capture using anchor frames. ACM Transactions on Graphics, 2011, 30, 1-10.	7.2	181
22	High-quality passive facial performance capture using anchor frames. , 2011, , .		63
23	A Complex View of Barycentric Mappings. Computer Graphics Forum, 2011, 30, 1533-1542.	3.0	26
24	Embedding a triangular graph within a given boundary. Computer Aided Geometric Design, 2011, 28, 349-356.	1.2	25
25	Capacity-Constrained Delaunay Triangulation for point distributions. Computers and Graphics, 2011, 35, 510-516.	2.5	32
26	Distributed computation of virtual coordinates for greedy routing in sensor networks. Discrete Applied Mathematics, 2011, 159, 544-560.	0.9	5
27	Online reconstruction of 3D objects from arbitrary cross-sections. ACM Transactions on Graphics, 2011, 30, 1-11.	7.2	20
28	Controllable conformal maps for shape deformation and interpolation. ACM Transactions on Graphics, 2010, 29, 1-11.	7.2	52
29	Mesh reconstruction by meshless denoising and parameterization. Computers and Graphics, 2010, 34, 198-208.	2.5	24
30	A spectral characterization of the Delaunay triangulation. Computer Aided Geometric Design, 2010, 27, 295-300.	1.2	13
31	3D Surface Reconstruction Using a Generalized Distance Function. Computer Graphics Forum, 2010, 29, 2479-2491.	3.0	4
32	An as-rigid-as-possible approach to sensor network localization. ACM Transactions on Sensor Networks, 2010, 6, 1-21.	3.6	47
33	A multi-resolution approach to heat kernels on discrete surfaces. ACM Transactions on Graphics, 2010, 29, 1-10.	7.2	45
34	Content-aware image resizing by quadratic programming. , 2010, , .		29
35	Spatial deformation transfer. , 2009, , .		47
36	Variational harmonic maps for space deformation. ACM Transactions on Graphics, 2009, 28, 1-11.	7.2	101

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37	Complex Barycentric Coordinates with Applications to Planar Shape Deformation. Computer Graphics Forum, 2009, 28, 587-597.	3.0	79
38	Energy-Based Image Deformation. Computer Graphics Forum, 2009, 28, 1257-1268.	3.0	93
39	Variational harmonic maps for space deformation. , 2009, , .		14
40	Mesh massage. Visual Computer, 2008, 24, 775-785.	3.5	6
41	Paper-craft from 3D polygonal models using generalized cylinders. Computer Aided Geometric Design, 2008, 25, 576-591.	1.2	8
42	Reduced Depth and Visual Hulls of Complex 3D Scenes. Computer Graphics Forum, 2008, 27, 175-182.	3.0	7
43	Articulated Object Reconstruction and Markerless Motion Capture from Depth Video. Computer Graphics Forum, 2008, 27, 399-408.	3.0	87
44	Conformal Flattening by Curvature Prescription and Metric Scaling. Computer Graphics Forum, 2008, 27, 449-458.	3.0	128
45	Distortion-Free Steganography for Polygonal Meshes. Computer Graphics Forum, 2008, 27, 637-642.	3.0	44
46	A Local/Global Approach to Mesh Parameterization. Computer Graphics Forum, 2008, 27, 1495-1504.	3.0	244
47	On the Computation of Null Spaces of Sparse Rectangular Matrices. SIAM Journal on Matrix Analysis and Applications, 2008, 30, 445-463.	1.4	24
48	Recent Advances in Remeshing of Surfaces. Mathematics and Visualization, 2008, , 53-82.	0.6	129
49	Distributed computation of virtual coordinates. , 2007, , .		24
50	Cycle bases of graphs and sampled manifolds. Computer Aided Geometric Design, 2007, 24, 464-480.	1.2	8
51	Context-Aware Skeletal Shape Deformation. Computer Graphics Forum, 2007, 26, 265-274.	3.0	117
52	Discrete one-forms on meshes and applications to 3D mesh parameterization. Computer Aided Geometric Design, 2006, 23, 83-112.	1.2	83
53	Meshing genus-1 point clouds using discrete one-forms. Computers and Graphics, 2006, 30, 917-926.	2.5	38
54	On the Algorithmic Design of Architectural Configurations. Environment and Planning B: Planning and Design, 2006, 33, 131-140.	1.7	3

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55	Whatâ€™s in an image?. <i>Visual Computer</i> , 2005, 21, 840-847.	3.5	75
56	On the optimality of spectral compression of mesh data. <i>ACM Transactions on Graphics</i> , 2005, 24, 60-80.	7.2	44
57	Mesh-based inverse kinematics. <i>ACM Transactions on Graphics</i> , 2005, 24, 488-495.	7.2	192
58	Recent Advances in Compression of 3D Meshes. , 2005, , 3-26.		143
59	Mesh-based inverse kinematics. , 2005, , .		62
60	Distributed Graph Layout for Sensor Networks. <i>Journal of Graph Algorithms and Applications</i> , 2005, 9, 327-346.	0.4	20
61	VIRTUAL WOODWORK: MAKING TOYS FROM GEOMETRIC MODELS. <i>International Journal of Shape Modeling</i> , 2004, 10, 1-29.	0.2	14
62	Geometric Message-Filtering Protocols for Distributed Multiagent Environments. <i>Presence: Teleoperators and Virtual Environments</i> , 2004, 13, 279-295.	0.6	9
63	Compression of soft-body animation sequences. <i>Computers and Graphics</i> , 2004, 28, 25-34.	2.5	187
64	Robust Spherical Parameterization of Triangular Meshes. <i>Computing (Vienna/New York)</i> , 2004, 72, 185-193.	4.8	47
65	High quality compatible triangulations. <i>Engineering With Computers</i> , 2003, -1, 1-1.	6.1	10
66	On the Optimality of Valence-based Connectivity Coding. <i>Computer Graphics Forum</i> , 2003, 22, 99-102.	3.0	17
67	INTRINSIC MORPHING OF COMPATIBLE TRIANGULATIONS. <i>International Journal of Shape Modeling</i> , 2003, 09, 191-201.	0.2	37
68	Fundamentals of spherical parameterization for 3D meshes. , 2003, , .		89
69	Matchmaker. , 2003, , .		49
70	Matchmaker. <i>ACM Transactions on Graphics</i> , 2003, 22, 326-333.	7.2	76
71	Fundamentals of spherical parameterization for 3D meshes. <i>ACM Transactions on Graphics</i> , 2003, 22, 358-363.	7.2	178
72	Simplification and Compression of 3D Meshes. <i>Mathematics and Visualization</i> , 2002, , 319-361.	0.6	59

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73	Universal Rendering Sequences for Transparent Vertex Caching of Progressive Meshes. Computer Graphics Forum, 2002, 21, 137-149.	3.0	75
74	Antifaces: a novel, fast method for image detection. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2001, 23, 747-761.	13.9	54
75	Efficient Coding of Nontriangular Mesh Connectivity. Graphical Models, 2001, 63, 263-275.	2.4	16
76	Guaranteed intersection-free polygon morphing. Computers and Graphics, 2001, 25, 67-75.	2.5	82
77	Texture Mapping with Hard Constraints. Computer Graphics Forum, 2001, 20, 95-104.	3.0	40
78	Controllable morphing of compatible planar triangulations. ACM Transactions on Graphics, 2001, 20, 203-231.	7.2	45
79	Interactive-Rate Animation Generation by Parallel Progressive Ray-Tracing on Distributed-Memory Machines. Journal of Parallel and Distributed Computing, 2000, 60, 1074-1102.	4.1	4
80	Spectral compression of mesh geometry. , 2000, , .		447
81	Anti-Faces for Detection. Lecture Notes in Computer Science, 2000, , 134-148.	1.3	2
82	How to morph tilings injectively. Journal of Computational and Applied Mathematics, 1999, 101, 117-129.	2.0	67
83	Modeling and Rendering Escherâ€™Like Impossible Scenes. Computer Graphics Forum, 1999, 18, 173-179.	3.0	15
84	Optimized occlusion culling using five-dimensional subdivision. Computers and Graphics, 1999, 23, 645-654.	2.5	31
85	Enhancement by image-dependent warping. IEEE Transactions on Image Processing, 1999, 8, 1063-1074.	9.8	29
86	Dynamic scene occlusion culling. IEEE Transactions on Visualization and Computer Graphics, 1999, 5, 13-29.	4.4	16
87	Fitting curves and surfaces with constrained implicit polynomials. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1999, 21, 31-41.	13.9	53
88	Parallel progressive rendering of animation sequences at interactive rates on distributed-memory machines. , 1997, , .		3
89	Parallel Progressive Ray-tracing. Computer Graphics Forum, 1997, 16, 43-55.	3.0	16
90	On the metric properties of discrete space-filling curves. IEEE Transactions on Image Processing, 1996, 5, 794-797.	9.8	150

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91	Output-Sensitive Visibility Algorithms for Dynamic Scenes with Applications to Virtual Reality. Computer Graphics Forum, 1996, 15, 249-258.	3.0	24
92	Acquisition and mosaicing of low-contrast background radiometric images for scene simulation. Optical Engineering, 1996, 35, 2583.	1.0	1
93	Time/space tradeoffs for polygon mesh rendering. ACM Transactions on Graphics, 1996, 15, 141-152.	7.2	64
94	Euclidean Voronoi labelling on the multidimensional grid. Pattern Recognition Letters, 1995, 16, 409-415.	4.2	9
95	Dynamic color quantization of video sequences. IEEE Transactions on Visualization and Computer Graphics, 1995, 1, 274-286.	4.4	17
96	Algorithms for rendering realistic terrain image sequences and their parallel implementation. Visual Computer, 1995, 11, 455-464.	3.5	8
97	Approximation of Smooth Surfaces and Adaptive Sampling by Piecewise-linear Interpolants. , 1995, , 17-27.		2
98	Algorithms for rendering realistic terrain image sequences and their parallel implementation. Visual Computer, 1995, 11, 455-464.	3.5	0
99	Spectral properties of threshold functions. Combinatorica, 1994, 14, 35-50.	1.2	40
100	Constant-Time Filtering by Singular Value Decomposition+. Computer Graphics Forum, 1994, 13, 153-163.	3.0	14
101	Photorealistic terrain imaging and flight simulation. IEEE Computer Graphics and Applications, 1994, 14, 10-12.	1.2	13
102	On the most robust affine basis. Pattern Recognition Letters, 1993, 14, 647-650.	4.2	3
103	Connectivity and dynamics for random subgraphs of the directed cube. Israel Journal of Mathematics, 1993, 83, 321-328.	0.8	4
104	Halftoning of image sequences. Visual Computer, 1993, 9, 255-266.	3.5	19
105	RECOGNITION OF AFFINE TRANSFORMED PLANAR CURVES BY EXTREMAL GEOMETRIC PROPERTIES. International Journal of Computational Geometry and Applications, 1993, 03, 183-202.	0.5	4
106	The equivalence of two problems on the cube. Journal of Combinatorial Theory - Series A, 1992, 61, 142-146.	0.8	19
107	A note on functions governed by Walsh expressions. IEEE Transactions on Information Theory, 1991, 37, 694-695.	2.4	0
108	A cluster detection algorithm based on percolation theory. Pattern Recognition Letters, 1991, 12, 199-202.	4.2	6

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109	Optimized compression of triangle mesh geometry using prediction trees. , 0, , .		25
110	On the metric properties of discrete space-filling curves. , 0, , .		9
111	Visualization of large terrains in resource-limited computing environments. , 0, , .		15
112	Parallel progressive rendering of animation sequences at interactive rates on distributed-memory machines. , 0, , .		1
113	Optimized triangle mesh compression using prediction trees. , 0, , .		4
114	Efficient coding of non-triangular mesh connectivity. , 0, , .		16
115	Morphing stick figures using optimized compatible triangulations. , 0, , .		5
116	Efficient compression and rendering of multi-resolution meshes. , 0, , .		22
117	On graph partitioning, spectral analysis, and digital mesh processing. , 0, , .		14
118	GPU-assisted Z-field simplification. , 0, , .		3
119	Geometry processing - a personal perspective. , 0, , .		0
120	What’s in a Mesh? A Survey of 3D Mesh Representation Schemes. , 0, , .		0
121	Practical spherical embedding of manifold triangle meshes. , 0, , .		36
122	Free-boundary linear parameterization of 3D meshes in the presence of constraints. , 0, , .		9