

# Thomas Lewiner

## List of Publications by Year in descending order

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64  
papers

1,282  
citations

516710

16  
h-index

395702

33  
g-index

65  
all docs

65  
docs citations

65  
times ranked

1222  
citing authors

#	ARTICLE	IF	CITATIONS
1	Discrete line fields on surfaces. <i>Topology and Its Applications</i> , 2021, 290, 107603.	0.4	1
2	Online human moves recognition through discriminative key poses and speed-aware action graphs. <i>Machine Vision and Applications</i> , 2017, 28, 185-200.	2.7	5
3	Estimating affine-invariant structures on triangle meshes. <i>Computers and Graphics</i> , 2016, 60, 83-92.	2.5	4
4	Parameterized Complexity of Discrete Morse Theory. <i>ACM Transactions on Mathematical Software</i> , 2016, 42, 1-24.	2.9	4
5	Online gesture recognition from pose kernel learning and decision forests. <i>Pattern Recognition Letters</i> , 2014, 39, 65-73.	4.2	44
6	Simplified Training for Gesture Recognition. , 2014, , .		3
7	Guest Editorial: Image and Video Processing and Analysis. <i>Journal of Mathematical Imaging and Vision</i> , 2013, 45, 199-199.	1.3	0
8	Streamline-Based Topological Graph Construction with Application to Self-Animated Images. , 2013, , .		1
9	Critical sets in discrete Morse theories: Relating Forman and piecewise-linear approaches. <i>Computer Aided Geometric Design</i> , 2013, 30, 609-621.	1.2	8
10	Parameterized complexity of discrete morse theory. , 2013, , .		5
11	Real-Time Gesture Recognition from Depth Data through Key Poses Learning and Decision Forests. , 2012, , .		47
12	Affine-invariant curvature estimators for implicit surfaces. <i>Computer Aided Geometric Design</i> , 2012, 29, 162-173.	1.2	9
13	Cauchy problems for discrete affine minimal surfaces. <i>Archivum Mathematicum</i> , 2012, , 1-14.	0.3	1
14	Stereo music visualization through manifold harmonics. <i>Visual Computer</i> , 2011, 27, 905-916.	3.5	2
15	Interactive 3D caricature from harmonic exaggeration. <i>Computers and Graphics</i> , 2011, 35, 586-595.	2.5	19
16	Role of arches in the generation of shear bands in a dense 3D granular system under shear. <i>Journal of Physics: Conference Series</i> , 2010, 246, 012016.	0.4	0
17	Projective Splines and Estimators for Planar Curves. <i>Journal of Mathematical Imaging and Vision</i> , 2010, 36, 81-89.	1.3	0
18	Topological mesh operators. <i>Computer Aided Geometric Design</i> , 2010, 27, 1-22.	1.2	9

#	ARTICLE	IF	CITATIONS
19	Discrete affine minimal surfaces with indefinite metric. <i>Differential Geometry and Its Applications</i> , 2010, 28, 158-169.	0.5	10
20	Fast Generation of Pointerless Octree Duals. <i>Computer Graphics Forum</i> , 2010, 29, 1661-1669.	3.0	16
21	Topology Aware Vector Field Denoising. , 2010, , .		3
22	Meshless Helmholtz-Hodge Decomposition. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2010, 16, 338-349.	4.4	37
23	Tuning Manifold Harmonics Filters. , 2010, , .		3
24	ON 2D SOLID $\hat{\pm}$ -COMPLEXES OF POISSON DISC SAMPLINGS. <i>International Journal of Shape Modeling</i> , 2009, 15, 77-91.	0.2	1
25	Schnyder Woods for Higher Genus Triangulated Surfaces, with Applications to Encoding. <i>Discrete and Computational Geometry</i> , 2009, 42, 489-516.	0.6	11
26	Learning good views through intelligent galleries. <i>Computer Graphics Forum</i> , 2009, 28, 717-726.	3.0	36
27	Arch generated shear bands in granular systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2009, 388, 2099-2108.	2.6	7
28	Particle-based viscoplastic fluid/solid simulation. <i>CAD Computer Aided Design</i> , 2009, 41, 306-314.	2.7	47
29	Geometry Super-Resolution by Example. , 2009, , .		1
30	Random Walks for Vector Field Denoising. , 2009, , .		2
31	Scale-Space for Union of 3D Balls. , 2009, , .		2
32	Support Vectors Learning for Vector Field Reconstruction. , 2009, , .		2
33	Schnyder woods for higher genus triangulated surfaces (abstract). <i>Electronic Notes in Discrete Mathematics</i> , 2008, 31, 109-114.	0.4	0
34	Statistical optimization of octree searches. <i>Computer Graphics Forum</i> , 2008, 27, 1557-1566.	3.0	16
35	Projective Estimators for Point/Tangent Representations of Planar Curves. , 2008, , .		3
36	Approximations by Smooth Transitions in Binary Space Partitions. , 2008, , .		3

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37	Space-time surface reconstruction using incompressible flow. ACM Transactions on Graphics, 2008, 27, 1-10.	7.2	50
38	Schnyder woods for higher genus triangulated surfaces. , 2008, , .		0
39	Interactive topology-aware surface reconstruction. , 2007, , .		17
40	Interactive topology-aware surface reconstruction. ACM Transactions on Graphics, 2007, 26, 43.	7.2	41
41	On the Fly Curve Skeleton Computation for 3D Shapes. Computer Graphics Forum, 2007, 26, 323-328.	3.0	80
42	Combining Points and Tangents into Parabolic Polygons. Journal of Mathematical Imaging and Vision, 2007, 29, 131-140.	1.3	6
43	Reconstru�o Topol�gica Tridimensional de Objetos Geol�gicos em Bacias Mar�timas Usando Dados S�smicos 2D ou 3D: uma Ferramenta Explorat�ria e Explotat�ria de Hidrocarbonetos. , 2007, , .		0
44	Minera�o Visual de Multiatributos S�smicos para Classifica�o de Multif�cies. , 2007, , .		0
45	Particle-based non-Newtonian fluid animation for melting objects. , 2006, , .		24
46	Exploratory visualization based on multidimensional transfer functions and star coordinates. , 2006, , .		11
47	Point set compression through BSP quantization. Computer Graphics and Image Processing (SIBGRAPI), Proceedings of the Brazilian Symposium on, 2006, , .	0.0	4
48	Vector field reconstruction from sparse samples with applications. Computer Graphics and Image Processing (SIBGRAPI), Proceedings of the Brazilian Symposium on, 2006, , .	0.0	10
49	Competing Fronts for Coarse-to-Fine Surface Reconstruction. Computer Graphics Forum, 2006, 25, 389-398.	3.0	57
50	GEncode: Geometry-driven compression for General Meshes. Computer Graphics Forum, 2006, 25, 685-695.	3.0	6
51	Extraction and compression of hierarchical isocontours from image data. Computerized Medical Imaging and Graphics, 2006, 30, 231-242.	5.8	2
52	Parabolic Polygons and Discrete Affine Geometry. Computer Graphics and Image Processing (SIBGRAPI), Proceedings of the Brazilian Symposium on, 2006, , .	0.0	3
53	Robust adaptive meshes for implicit surfaces. Computer Graphics and Image Processing (SIBGRAPI), Proceedings of the Brazilian Symposium on, 2006, , .	0.0	24
54	Curvature and torsion estimators based on parametric curve fitting. Computers and Graphics, 2005, 29, 641-655.	2.5	74

#	ARTICLE	IF	CITATIONS
55	GEncode: Geometry-Driven Compression in Arbitrary Dimension and Co-Dimension. , 2005, , .		4
56	CHF: A Scalable Topological Data Structure for Tetrahedral Meshes. , 2005, , .		14
57	Curvature Motion for Union of Balls. , 2005, , .		2
58	Stellar Mesh Simplification Using Probabilistic Optimization. Computer Graphics Forum, 2004, 23, 825-838.	3.0	12
59	Applications of Forman's discrete Morse theory to topology visualization and mesh compression. IEEE Transactions on Visualization and Computer Graphics, 2004, 10, 499-508.	4.4	51
60	Optimal discrete Morse functions for 2-manifolds. Computational Geometry: Theory and Applications, 2003, 26, 221-233.	0.5	52
61	Efficient Implementation of Marching Cubes' Cases with Topological Guarantees. Journal of Graphics Tools, 2003, 8, 1-15.	0.5	336
62	Toward Optimality in Discrete Morse Theory. Experimental Mathematics, 2003, 12, 271-285.	0.7	27
63	Arc-length based curvature estimator. , 0, , .		10
64	Hierarchical isocontours extraction and compression. , 0, , .		3