Silvia Biasotti

List of Publications by Year
in descending order

66 papers	1,778 citations	393982 19 h-index	288905 40 g-index
75 all docs	75 docs citations	75 times ranked	1093 citing authors

#	Article	IF	Citations
1	Hough Transform for Detecting Space Curves in Digital 3D Models. Journal of Mathematical Imaging and Vision, 2022, 64, 284-297.	0.8	6
2	The role of mesh quality and mesh quality indicators in the virtual element method. Advances in Computational Mathematics, 2022, 48, 1.	0.8	19
3	Polyhedron kernel computation using a geometric approach. Computers and Graphics, 2022, 105, 94-104.	1.4	7
4	Hough transform based recognition of space curves. Journal of Computational and Applied Mathematics, 2022, 415, 114504.	1.1	5
5	SHREC 2022: Protein–ligand binding site recognition. Computers and Graphics, 2022, 107, 20-31.	1.4	10
6	Weighted quasi-interpolant spline approximations: Properties and applications. Numerical Algorithms, 2021, 87, 819-847.	1.1	3
7	SHREC 2021: Retrieval and classification of protein surfaces equipped with physical and chemical properties. Computers and Graphics, 2021, 99, 1-21.	1.4	10
8	Benchmarking the geometrical robustness of a Virtual Element Poisson solver. Mathematics and Computers in Simulation, 2021, 190, 1392-1414.	2.4	11
9	Weighted Quasi-Interpolant Spline Approximations of Planar Curvilinear Profiles in Digital Images. Mathematics, 2021, 9, 3084.	1.1	3
10	mpLBP: A point-based representation for surface pattern description. Computers and Graphics, 2020, 86, 81-92.	1.4	6
11	SHREC 2020: Retrieval of digital surfaces with similar geometric reliefs. Computers and Graphics, 2020, 91, 199-218.	1.4	10
12	Data-driven quasi-interpolant spline surfaces for point cloud approximation. Computers and Graphics, 2020, 89, 144-155.	1.4	6
13	HT-Based identification of 3D feature curves and their insertion into 3D meshes. Computers and Graphics, 2020, 89, 105-116.	1.4	7
14	Recognising decorations in archaeological finds through the analysis of characteristic curves on 3D models. Pattern Recognition Letters, 2020, 131, 405-412.	2.6	10
15	Context-adaptive navigation of 3D model collections. Computers and Graphics, 2019, 79, 1-13.	1.4	6
16	Retrieving color patterns on surface meshes using edgeLBP descriptors. Computers and Graphics, 2019, 79, 46-57.	1.4	4
17	Description and retrieval of geometric patterns on surface meshes using an edge-based LBP approach. Pattern Recognition, 2018, 82, 1-15.	5.1	27
18	Recognition of feature curves on 3D shapes using an algebraic approach to Hough transforms. Pattern Recognition, 2018, 73, 111-130.	5.1	38

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19	Topology-driven shape chartification. Computer Aided Geometric Design, 2018, 65, 13-28.	0.5	7
20	Comparing methods for the approximation of rainfall fields in environmental applications. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 127, 57-72.	4.9	4
21	Shape Simplification Through Graph Sparsification. Lecture Notes in Computer Science, 2017, , 13-22.	1.0	2
22	Recent Trends, Applications, and Perspectives in 3D Shape Similarity Assessment. Computer Graphics Forum, 2016, 35, 87-119.	1.8	89
23	Retrieval and classification methods for textured 3D models: a comparative study. Visual Computer, 2016, 32, 217-241.	2.5	25
24	3D Artifacts Similarity Based on the Concurrent Evaluation of Heterogeneous Properties. Journal on Computing and Cultural Heritage, 2015, 8, 1-19.	1.2	12
25	Mathematical Tools for Shape Analysis and Description. Synthesis Lectures on Computer Graphics and Animation, 2014, 6, 1-138.	0.1	11
26	3D shape retrieval and classification using multiple kernel learning on extended Reeb graphs. Visual Computer, 2014, 30, 1247-1259.	2.5	21
27	Information-theoretic selection of high-dimensional spectral features for structural recognition. Computer Vision and Image Understanding, 2013, 117, 214-228.	3.0	25
28	PHOG: Photometric and geometric functions for textured shape retrieval. Computer Graphics Forum, 2013, 32, 13-22.	1.8	21
29	Grouping real functions defined on 3D surfaces. Computers and Graphics, 2013, 37, 608-619.	1.4	7
30	3D shape retrieval using Kernels on Extended Reeb Graphs. Pattern Recognition, 2013, 46, 2985-2999.	5.1	62
31	Complexity Fusion for Indexing Reeb Digraphs. Lecture Notes in Computer Science, 2013, , 120-127.	1.0	5
32	The hitchhiker's guide to the galaxy of mathematical tools for shape analysis. , 2012, , .		2
33	A new algorithm for computing the 2-dimensional matching distance between size functions. Pattern Recognition Letters, 2011, 32, 1735-1746.	2.6	28
34	Geometric models with weigthed topology. Computers and Graphics, 2011, 35, 542-548.	1.4	1
35	Graph-based representations of point clouds. Graphical Models, 2011, 73, 151-164.	1.1	31
36	Robustness and Modularity of 2-Dimensional Size Functions – An Experimental Study. Lecture Notes in Computer Science, 2011, , 34-41.	1.0	1

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37	Information-theoretic Feature Selection from Unattributed Graphs. , 2010, , .		2
38	Shape approximation by differential properties of scalar functions. Computers and Graphics, 2010, 34, 252-262.	1.4	6
39	High-Dimensional Spectral Feature Selection for 3D Object Recognition Based on Reeb Graphs. Lecture Notes in Computer Science, 2010, , 119-128.	1.0	6
40	Shape comparison through mutual distances of real functions. , 2010, , .		7
41	Discrete Laplace–Beltrami operators for shape analysis and segmentation. Computers and Graphics, 2009, 33, 381-390.	1.4	224
42	A Critical Assessment of 2D and 3D Face Recognition Algorithms. , 2009, , .		5
43	Reeb graphs for shape analysis and applications. Theoretical Computer Science, 2008, 392, 5-22.	0.5	200
44	Multidimensional Size Functions for Shape Comparison. Journal of Mathematical Imaging and Vision, 2008, 32, 161-179.	0.8	62
45	Size functions for comparing 3D models. Pattern Recognition, 2008, 41, 2855-2873.	5.1	41
46	Describing shapes by geometrical-topological properties of real functions. ACM Computing Surveys, 2008, 40, 1-87.	16.1	152
47	SHape REtrieval contest 2008: Stability of watertight models. , 2008, , .		33
48	Skeletal Structures. Mathematics and Visualization, 2008, , 145-183.	0.4	19
49	Morphological Representations of Scalar Fields. Mathematics and Visualization, 2008, , 185-213.	0.4	9
50	k-dimensional Size Functions for Shape Description and Comparison. , 2007, , .		6
51	Differential topology methods for shape description. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1141901-1141902.	0.2	0
52	Comparing Sets of 3D Digital Shapes Through Topological Structures. Lecture Notes in Computer Science, 2007, , 114-125.	1.0	2
53	3D Classification Via Structural Prototypes. , 2007, , 140-143.		3
54	Surface Shape Understanding Based on Extended Reeb Graphs. , 2006, , 87-102.		14

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55	Sub-part correspondence by structural descriptors of 3D shapes. CAD Computer Aided Design, 2006, 38, 1002-1019.	1.4	128
56	Computational methods for understanding 3D shapes. Computers and Graphics, 2006, 30, 323-333.	1.4	20
57	3D object comparison based on shape descriptors. International Journal of Computer Applications in Technology, 2005, 23, 57.	0.3	8
58	What's in an image?. Visual Computer, 2005, 21, 840-847.	2.5	75
59	Shape understanding by contour-driven retiling. Visual Computer, 2003, 19, 127-138.	2.5	49
60	3D Shape Matching through Topological Structures. Lecture Notes in Computer Science, 2003, , 194-203.	1.0	59
61	Shape Abstraction Using Computational Topology Techniques. , 2002, , 209-222.		9
62	Extended Reeb Graphs for Surface Understanding and Description. Lecture Notes in Computer Science, 2000, , 185-197.	1.0	50
63	Re-meshing techniques for topological analysis. , 0, , .		11
64	An overview on properties and efficacy of topological skeletons in shape modeling. , 0, , .		25
65	Reeb graph representation of surfaces with boundary. , 0, , .		6
66	A COMPARISON OF METHODS FOR THE APPROXIMATION AND ANALYSIS OF RAINFALL FIELDS IN ENVIRONMENTAL APPLICATIONS. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, II-3/W5, 523-530.	0.0	1