

Silvia Biasotti

List of Publications by Year in descending order

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Version: 2024-02-01

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	Discrete Laplace–Beltrami operators for shape analysis and segmentation. <i>Computers and Graphics</i> , 2009, 33, 381-390.	1.4	224
2	Reeb graphs for shape analysis and applications. <i>Theoretical Computer Science</i> , 2008, 392, 5-22.	0.5	200
3	Describing shapes by geometrical-topological properties of real functions. <i>ACM Computing Surveys</i> , 2008, 40, 1-87.	16.1	152
4	Sub-part correspondence by structural descriptors of 3D shapes. <i>CAD Computer Aided Design</i> , 2006, 38, 1002-1019.	1.4	128
5	Recent Trends, Applications, and Perspectives in 3D Shape Similarity Assessment. <i>Computer Graphics Forum</i> , 2016, 35, 87-119.	1.8	89
6	What’s in an image?. <i>Visual Computer</i> , 2005, 21, 840-847.	2.5	75
7	Multidimensional Size Functions for Shape Comparison. <i>Journal of Mathematical Imaging and Vision</i> , 2008, 32, 161-179.	0.8	62
8	3D shape retrieval using Kernels on Extended Reeb Graphs. <i>Pattern Recognition</i> , 2013, 46, 2985-2999.	5.1	62
9	3D Shape Matching through Topological Structures. <i>Lecture Notes in Computer Science</i> , 2003, , 194-203.	1.0	59
10	Extended Reeb Graphs for Surface Understanding and Description. <i>Lecture Notes in Computer Science</i> , 2000, , 185-197.	1.0	50
11	Shape understanding by contour-driven retiling. <i>Visual Computer</i> , 2003, 19, 127-138.	2.5	49
12	Size functions for comparing 3D models. <i>Pattern Recognition</i> , 2008, 41, 2855-2873.	5.1	41
13	Recognition of feature curves on 3D shapes using an algebraic approach to Hough transforms. <i>Pattern Recognition</i> , 2018, 73, 111-130.	5.1	38
14	SHape REtrieval contest 2008: Stability of watertight models. , 2008, , .		33
15	Graph-based representations of point clouds. <i>Graphical Models</i> , 2011, 73, 151-164.	1.1	31
16	A new algorithm for computing the 2-dimensional matching distance between size functions. <i>Pattern Recognition Letters</i> , 2011, 32, 1735-1746.	2.6	28
17	Description and retrieval of geometric patterns on surface meshes using an edge-based LBP approach. <i>Pattern Recognition</i> , 2018, 82, 1-15.	5.1	27
18	An overview on properties and efficacy of topological skeletons in shape modeling. , 0, , .		25

#	ARTICLE	IF	CITATIONS
19	Information-theoretic selection of high-dimensional spectral features for structural recognition. <i>Computer Vision and Image Understanding</i> , 2013, 117, 214-228.	3.0	25
20	Retrieval and classification methods for textured 3D models: a comparative study. <i>Visual Computer</i> , 2016, 32, 217-241.	2.5	25
21	PHOG: Photometric and geometric functions for textured shape retrieval. <i>Computer Graphics Forum</i> , 2013, 32, 13-22.	1.8	21
22	3D shape retrieval and classification using multiple kernel learning on extended Reeb graphs. <i>Visual Computer</i> , 2014, 30, 1247-1259.	2.5	21
23	Computational methods for understanding 3D shapes. <i>Computers and Graphics</i> , 2006, 30, 323-333.	1.4	20
24	Skeletal Structures. <i>Mathematics and Visualization</i> , 2008, , 145-183.	0.4	19
25	The role of mesh quality and mesh quality indicators in the virtual element method. <i>Advances in Computational Mathematics</i> , 2022, 48, 1.	0.8	19
26	Surface Shape Understanding Based on Extended Reeb Graphs. , 2006, , 87-102.		14
27	3D Artifacts Similarity Based on the Concurrent Evaluation of Heterogeneous Properties. <i>Journal on Computing and Cultural Heritage</i> , 2015, 8, 1-19.	1.2	12
28	Re-meshing techniques for topological analysis. , 0, , .		11
29	Mathematical Tools for Shape Analysis and Description. <i>Synthesis Lectures on Computer Graphics and Animation</i> , 2014, 6, 1-138.	0.1	11
30	Benchmarking the geometrical robustness of a Virtual Element Poisson solver. <i>Mathematics and Computers in Simulation</i> , 2021, 190, 1392-1414.	2.4	11
31	SHREC 2020: Retrieval of digital surfaces with similar geometric reliefs. <i>Computers and Graphics</i> , 2020, 91, 199-218.	1.4	10
32	Recognising decorations in archaeological finds through the analysis of characteristic curves on 3D models. <i>Pattern Recognition Letters</i> , 2020, 131, 405-412.	2.6	10
33	SHREC 2021: Retrieval and classification of protein surfaces equipped with physical and chemical properties. <i>Computers and Graphics</i> , 2021, 99, 1-21.	1.4	10
34	SHREC 2022: Proteinâ€™ligand binding site recognition. <i>Computers and Graphics</i> , 2022, 107, 20-31.	1.4	10
35	Shape Abstraction Using Computational Topology Techniques. , 2002, , 209-222.		9
36	Morphological Representations of Scalar Fields. <i>Mathematics and Visualization</i> , 2008, , 185-213.	0.4	9

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37	3D object comparison based on shape descriptors. International Journal of Computer Applications in Technology, 2005, 23, 57.	0.3	8
38	Grouping real functions defined on 3D surfaces. Computers and Graphics, 2013, 37, 608-619.	1.4	7
39	Topology-driven shape chartification. Computer Aided Geometric Design, 2018, 65, 13-28.	0.5	7
40	HT-Based identification of 3D feature curves and their insertion into 3D meshes. Computers and Graphics, 2020, 89, 105-116.	1.4	7
41	Shape comparison through mutual distances of real functions. , 2010, , .		7
42	Polyhedron kernel computation using a geometric approach. Computers and Graphics, 2022, 105, 94-104.	1.4	7
43	Reeb graph representation of surfaces with boundary. , 0, , .		6
44	k-dimensional Size Functions for Shape Description and Comparison. , 2007, , .		6
45	Shape approximation by differential properties of scalar functions. Computers and Graphics, 2010, 34, 252-262.	1.4	6
46	Context-adaptive navigation of 3D model collections. Computers and Graphics, 2019, 79, 1-13.	1.4	6
47	mpLBP: A point-based representation for surface pattern description. Computers and Graphics, 2020, 86, 81-92.	1.4	6
48	Data-driven quasi-interpolant spline surfaces for point cloud approximation. Computers and Graphics, 2020, 89, 144-155.	1.4	6
49	High-Dimensional Spectral Feature Selection for 3D Object Recognition Based on Reeb Graphs. Lecture Notes in Computer Science, 2010, , 119-128.	1.0	6
50	Hough Transform for Detecting Space Curves in Digital 3D Models. Journal of Mathematical Imaging and Vision, 2022, 64, 284-297.	0.8	6
51	A Critical Assessment of 2D and 3D Face Recognition Algorithms. , 2009, , .		5
52	Complexity Fusion for Indexing Reeb Digraphs. Lecture Notes in Computer Science, 2013, , 120-127.	1.0	5
53	Hough transform based recognition of space curves. Journal of Computational and Applied Mathematics, 2022, 415, 114504.	1.1	5
54	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

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55	Retrieving color patterns on surface meshes using edgeLBP descriptors. Computers and Graphics, 2019, 79, 46-57.	1.4	4
56	Weighted quasi-interpolant spline approximations: Properties and applications. Numerical Algorithms, 2021, 87, 819-847.	1.1	3
57	3D Classification Via Structural Prototypes. , 2007, , 140-143.		3
58	Weighted Quasi-Interpolant Spline Approximations of Planar Curvilinear Profiles in Digital Images. Mathematics, 2021, 9, 3084.	1.1	3
59	Information-theoretic Feature Selection from Unattributed Graphs. , 2010, , .		2
60	The hitchhiker's guide to the galaxy of mathematical tools for shape analysis. , 2012, , .		2
61	Shape Simplification Through Graph Sparsification. Lecture Notes in Computer Science, 2017, , 13-22.	1.0	2
62	Comparing Sets of 3D Digital Shapes Through Topological Structures. Lecture Notes in Computer Science, 2007, , 114-125.	1.0	2
63	Geometric models with weighed topology. Computers and Graphics, 2011, 35, 542-548.	1.4	1
64	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
65	Robustness and Modularity of 2-Dimensional Size Functions â€œ An Experimental Study. Lecture Notes in Computer Science, 2011, , 34-41.	1.0	1
66	Differential topology methods for shape description. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1141901-1141902.	0.2	0