Shigeo Takahashi

List of Publications by Year
in descending order

78 papers	1,178 citations	623734 14 h-index	477307 29 g-index
81 all docs	81 docs citations	81 times ranked	660 citing authors

#	Article	IF	Citations
1	A Frequency-Domain Approach to Watermarking 3D Shapes. Computer Graphics Forum, 2002, 21, 373-382.	3.0	157
2	Algorithms for Extracting Correct Critical Points and Constructing Topological Graphs from Discrete Geographical Elevation Data. Computer Graphics Forum, 1995, 14, 181-192.	3.0	142
3	Topological volume skeletonization and its application to transfer function design. Graphical Models, 2004, 66, 24-49.	2.4	105
4	Thermorph. , 2018, , .		98
5	Group motion editing. ACM Transactions on Graphics, 2008, 27, 1-8.	7.2	75
6	Spectralâ€Based Group Formation Control. Computer Graphics Forum, 2009, 28, 639-648.	3.0	56
7	A feature-based approach for smooth surfaces. , 1997, , .		43
8	Algorithms for Extracting Correct Critical Points and Constructing Topological Graphs from Discrete Geographical Elevation Data. Computer Graphics Forum, 1995, 14, 181-192.	3.0	31
9	Occlusion-Free Animation of Driving Routes for Car Navigation Systems. IEEE Transactions on Visualization and Computer Graphics, 2006, 12, 1141-1148.	4.4	27
10	A Survey on Transit Map Layout â€" from Design, Machine, and Human Perspectives. Computer Graphics Forum, 2020, 39, 619-646.	3.0	27
11	Applying Manifold Learning to Plotting Approximate Contour Trees. IEEE Transactions on Visualization and Computer Graphics, 2009, 15, 1185-1192.	4.4	26
12	Travelâ€Routeâ€Centered Metro Map Layout and Annotation. Computer Graphics Forum, 2012, 31, 925-934.	3.0	24
13	Spatially Efficient Design of Annotated Metro Maps. Computer Graphics Forum, 2013, 32, 261-270.	3.0	24
14	A Zone-Based Approach for Placing Annotation Labels on Metro Maps. Lecture Notes in Computer Science, 2011, , 91-102.	1.3	24
15	Modeling Surperspective Projection of Landscapes for Geographical Guide-Map Generation. Computer Graphics Forum, 2002, 21, 259-268.	3.0	23
16	A Graphâ€based Approach to Continuous Line Illustrations with Variable Levels of Detail. Computer Graphics Forum, 2011, 30, 1931-1939.	3.0	15
17	Interval volume decomposer: a topological approach to volume traversal. , 2005, , .		14
18	Abstracting images into continuous-line artistic styles. Visual Computer, 2013, 29, 729-738.	3.5	13

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19	Emphasizing Isosurface Embeddings in Direct Volume Rendering. , 2006, , 185-206.		12
20	Blending shapes by using subdivision surfaces. Computers and Graphics, 2001, 25, 41-58.	2.5	11
21	Constrained optimization for disoccluding geographic landmarks in 3D urban maps. , 2013, , .		11
22	Spectral-Based Contractible Parallel Coordinates. , 2014, , .		11
23	Manifold-based multiple-viewpoint CAD: a case study of mountain guide-map generation. CAD Computer Aided Design, 1994, 26, 622-631.	2.7	10
24	Voronoi-Based Label Placement for Metro Maps. , 2013, , .		10
25	T-Map: A Topological Approach to Visual Exploration of Time-Varying Volume Data. , 2005, , 176-190.		10
26	Area Guide Map Modeling by Manifolds and CW-Complexes. , 1993, , 5-20.		9
27	Continuous-resolution-level constraints in variational design of multiresolution shapes. Visual Computer, 1998, 14, 177-192.	3.5	8
28	Variational design of curves and surfaces using multiresolution constraints. Visual Computer, 1998, 14, 208-227.	3.5	8
29	TimeTubes: Visualization of Polarization Variations in Blazars. Galaxies, 2016, 4, 23.	3.0	8
30	Optimizing Stepwise Animation in Dynamic Set Diagrams. Computer Graphics Forum, 2019, 38, 13-24.	3.0	8
31	Flowâ€Based Automatic Generation of Hybrid Picture Mazes. Computer Graphics Forum, 2009, 28, 1975-1984.	3.0	7
32	A Visually Enhanced Approach to Watermarking 3D Models. , 2010, , .		7
33	Designing and Annotating Metro Maps with Loop Lines. , 2015, , .		7
34	Manipulating Bilevel Feature Space for Category-Aware Image Exploration. , 2014, , .		6
35	Interactive Visualization for Singular Fibers of Functions f : R^3 → R^2. IEEE Transactions on Visualization and Computer Graphics, 2016, 22, 945-954.	4.4	6
36	TimeTubes: Visual Exploration of Observed Blazar Datasets. Journal of Physics: Conference Series, 2018, 1036, 012011.	0.4	6

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37	An Interior Surface Generation Method for All-Hexahedral Meshing. , 2005, , 377-398.		6
38	Constraint-based simulation of interactions between fluids and unconstrained rigid bodies. , 2009, , .		5
39	Sophisticated Construction and Search of 2D Motion Graphs for Synthesizing Videos. , 2010, , .		5
40	Interactively Uncluttering Node Overlaps for Network Visualization. , 2015, , .		5
41	Biclustering multivariate data for correlated subspace mining. , 2015, , .		5
42	Scale-Aware Cartographic Displacement Based on Constrained Optimization. , 2019, , .		5
43	Automatic Cross-Sectioning Based on Topological Volume Skeletonization. Lecture Notes in Computer Science, 2005, , 175-184.	1.3	5
44	An interior surface generation method for all-hexahedral meshing. Engineering With Computers, 2010, 26, 303-316.	6.1	4
45	Introducing Leader Lines into Scale-Aware Consistent Labeling. Lecture Notes in Geoinformation and Cartography, 2017, , 117-130.	1.0	4
46	Visualizing Multivariate Data Using Singularity Theory. Mathematics for Industry, 2014, , 51-65.	0.4	4
47	Interpolating 3D Diffusion Tensors in 2D Planar Domain by Locating Degenerate Lines. Lecture Notes in Computer Science, 2010, , 328-337.	1.3	4
48	Perceptually-Guided Design of Nonperspectives through Pictorial Depth Cues. , 2010, , .		3
49	TimeTubes: Design of a Visualization Tool for Time-Dependent, Multivariate Blazar Datasets. , 2016, , .		3
50	Enhancing Infographics Based on Symmetry Saliency. , 2016, , .		3
51	Progressive Annotation of Schematic Railway Maps. , 2018, , .		3
52	Topologically-Accentuated Volume Rendering. , 2003, , 95-108.		3
53	Automatic Blending of Multiple Perspective Views for Aesthetic Composition. Lecture Notes in Computer Science, 2010, , 220-231.	1.3	3
54	Aggregating Viewpoints for Effective View-Based 3D Model Retrieval. , 2021, , .		3

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55	Gaze-driven placement of items for proactive visual exploration. Journal of Visualization, 2022, 25, 613-633.	1.8	3
56	Degeneracy-aware interpolation of 3D diffusion tensor fields. Proceedings of SPIE, 2012, , .	0.8	2
57	Visual data mining based on differential topology: a survey. Pacific Journal of Mathematics for Industry, 2014, 6, .	0.7	2
58	Data-driven approach to Type Ia supernovae: variable selection on the peak luminosity and clustering in visual analytics. Journal of Physics: Conference Series, 2016, 699, 012009.	0.4	2
59	Adaptive Blending of Multiple Network Layouts for Overlap-Free Labeling. , 2016, , .		2
60	Overlap-free labeling of clustered networks based on Voronoi tessellation. Journal of Visual Languages and Computing, 2018, 44, 106-119.	1.8	2
61	Mental Map Preservation for Progressively Labeling Railway Networks. International Journal of Art Culture and Design Technologies, 2019, 8, 31-50.	0.1	2
62	TOLERANCE CONSTRAINTS FOR VARIATIONAL DESIGN OF MULTIRESOLUTION CURVES AND SURFACES. International Journal of Shape Modeling, 2000, 06, 37-63.	0.2	1
63	A topologically-enhanced juxtaposition tool for hybrid wind tunnel. , 2013, , .		1
64	Visualizing Bag-of-Features Image Categorization Using Anchored Maps. , 2014, , .		1
65	Asymmetric biclustering with constrained von Mises-Fisher models. Journal of Physics: Conference Series, 2016, 699, 012018.	0.4	1
66	Visual analysis of geospatial multivariate data for investigating radioactive deposition processes. Visual Computer, 2021, 37, 3039-3050.	3.5	1
67	Using Mutual Information for Exploring Optimal Light Source Placements. Lecture Notes in Computer Science, 2017, , 155-166.	1.3	1
68	Interactive Control of Mesh Topology in Quadrilateral Mesh Generation Based on 2D Tensor Fields. Lecture Notes in Computer Science, 2012, , 726-735.	1.3	1
69	Measuring Three-Dimensional Shapes of Human Faces by Incorporating Stereo Vision with Photometry Using Blending Functions. , 1994, , .		1
70	Context-aware placement of items with gaze-based interaction. , 2020, , .		1
71	Topological Approach to Multisensory Realization of Wake Turbulence. , 2014, , .		0
72	Inferring Partial Orders of Nodes for Hierarchical Networkï¿½Layout. Journal of Imaging Science and Technology, 2016, 60, 604071-6040713.	0.5	0

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73	Guest Editorsâ€™ Introduction: Special Section on the IEEE Pacific Visualization Symposium 2015. IEEE Transactions on Visualization and Computer Graphics, 2016, 22, 1786-1787.	4.4	0
74	Depth-Enhanced Tag Cloud Maps. , 2018, , .		0
75	Feature-Driven Volume Fairing. Lecture Notes in Computer Science, 2009, , 233-242.	1.3	0
76	Algorithmic Animation of Constructing Surfaces from Cells. , 1992, , 191-198.		0
77	Extracting Important Routes from Illustration Maps Using Kernel Density Estimation. Lecture Notes in Computer Science, 2017, , 167-174.	1.3	0
78	Adjusting Control Parameters of Topology-Accentuated Transfer Functions for Volume Raycasting. Mathematics and Visualization, 2020, , 71-86.	0.6	0