

Alexei I Sourin

List of Publications by Year in descending order

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Version: 2024-02-01

109
papers

1,392
citations

471061

17
h-index

414034

32
g-index

111
all docs

111
docs citations

111
times ranked

784
citing authors

#	ARTICLE	IF	CITATIONS
1	Function representation in geometric modeling: concepts, implementation and applications. Visual Computer, 1995, 11, 429-446.	2.5	349
2	Human electroencephalograms seen as fractal time series: Mathematical analysis and visualization. Computers in Biology and Medicine, 2006, 36, 291-302.	3.9	91
3	Soldering defect detection in automatic optical inspection. Advanced Engineering Informatics, 2020, 43, 101004.	4.0	75
4	One class based feature learning approach for defect detection using deep autoencoders. Advanced Engineering Informatics, 2019, 42, 100933.	4.0	62
5	Function representation for sweeping by a moving solid. IEEE Transactions on Visualization and Computer Graphics, 1996, 2, 11-18.	2.9	45
6	Cybercampuses: design issues and future directions. Visual Computer, 2006, 22, 1015-1028.	2.5	39
7	Nanyang Technological University virtual campus [virtual reality project]. IEEE Computer Graphics and Applications, 2004, 24, 6-8.	1.0	37
8	Interactive labelling of a multivariate dataset for supervised machine learning using linked visualisations, clustering, and active learning. Visual Informatics, 2019, 3, 9-17.	2.5	36
9	Functionally based virtual embossing. Visual Computer, 2001, 17, 258-271.	2.5	29
10	Function-based shape modelling extension of the Virtual Reality Modelling Language. Computers and Graphics, 2006, 30, 629-645.	1.4	26
11	Function-defined shape metamorphoses in visual cyberworlds. Visual Computer, 2006, 22, 977-990.	2.5	24
12	Unsupervised Surface Defect Detection Using Deep Autoencoders and Data Augmentation. , 2018, , .		24
13	ANALYSIS AND VISUALIZATION OF HUMAN ELECTROENCEPHALOGRAMS SEEN AS FRACTAL TIME SERIES. Journal of Mechanics in Medicine and Biology, 2006, 06, 175-188.	0.3	23
14	Function-based visualization and haptic rendering in shared virtual spaces. Visual Computer, 2008, 24, 871-880.	2.5	20
15	Cyber-Learning in Cyberworlds. Journal of Cases on Information Technology, 2006, 8, 55-70.	0.7	19
16	Grid-based computer animation rendering. , 2006, , .		19
17	Image-driven virtual simulation of arthroscopy. Visual Computer, 2013, 29, 333-344.	2.5	19
18	Function-based representation of complex geometry and appearance. , 2005, , .		17

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19	Interactive surface-guided segmentation of brain MRI data. Computers in Biology and Medicine, 2009, 39, 1153-1160.	3.9	17
20	Procedural modeling of architecture with round geometry. Computers and Graphics, 2017, 64, 14-25.	1.4	17
21	Tangible images. , 2011, , .		15
22	Mid-air interaction with optical tracking for 3D modeling. Computers and Graphics, 2018, 74, 1-11.	1.4	15
23	Using real functions with application to hair modelling. Computers and Graphics, 1996, 20, 11-19.	1.4	14
24	Function-based approach to mixed haptic effects rendering. Visual Computer, 2011, 27, 321-332.	2.5	14
25	Real-time haptic interaction with RGBD video streams. Visual Computer, 2016, 32, 1311-1321.	2.5	14
26	A PDE method for patchwise approximation of large polygon meshes. Visual Computer, 2010, 26, 975-984.	2.5	13
27	Understanding People's Mental Models of Mid-Air Interaction for Virtual Assembly and Shape Modeling. , 2016, , .		13
28	Visual immersive haptic mathematics. Virtual Reality, 2009, 13, 221-234.	4.1	12
29	Feasibility Study on Free Hand Geometric Modelling Using Leap Motion in VRML/X3D. , 2014, , .		12
30	Physically based hydraulic erosion simulation on graphics processing unit. , 2007, , .		11
31	ORTHOPEDIC SURGERY TRAINING SIMULATION. Journal of Mechanics in Medicine and Biology, 2007, 07, 37-53.	0.3	11
32	Case Study: Shared Virtual and Augmented Environments for Creative Applications. SpringerBriefs in Computer Science, 2017, , 49-64.	0.2	11
33	Interactive function-based shape modelling. Computers and Graphics, 2007, 31, 66-76.	1.4	10
34	Exploration of Natural Free-Hand Interaction for Shape Modeling Using Leap Motion Controller. , 2016, , .		10
35	Interactive visual labelling versus active learning: an experimental comparison. Frontiers of Information Technology and Electronic Engineering, 2020, 21, 524-535.	1.5	10
36	Detection and segmentation of image anomalies based on unsupervised defect reparation. Visual Computer, 2021, 37, 3093-3102.	2.5	9

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37	Image-Driven Haptic Rendering. Lecture Notes in Computer Science, 2014, , 58-77.	1.0	9
38	Visual immersive haptic rendering on the web. , 2008, , .		9
39	Function-Based Haptic Interaction in Cyberworlds. , 2007, , .		8
40	Towards Automatic Optical Inspection of Soldering Defects. , 2018, , .		8
41	Mid-Air Gestures for Virtual Modeling with Leap Motion. Lecture Notes in Computer Science, 2016, , 221-230.	1.0	8
42	Towards Tangible Images and Video in Cyberworlds--Function-Based Approach. , 2010, , .		7
43	Haptic interaction with 2D images. , 2011, , .		7
44	Function-Based Single and Dual Point Haptic Interaction in Cyberworlds. Lecture Notes in Computer Science, 2012, , 1-16.	1.0	7
45	Function-based shape modeling and visualization in X3D. , 2006, , .		6
46	Collaboration in 3D Shared Spaces Using X3D and VRML. , 2009, , .		6
47	Self-supervised pairing image clustering for automated quality control. Visual Computer, 2022, 38, 1181-1194.	2.5	6
48	Function-based haptic collaboration in X3D. , 2009, , .		6
49	Visual Immersive Haptic Mathematics in Shared Virtual Spaces. Lecture Notes in Computer Science, 2009, , 1-19.	1.0	6
50	Image-Driven Haptic Rendering in Virtual Environments. , 2013, , .		5
51	Towards hand-eye coordination training in virtual knee arthroscopy. , 2013, , .		5
52	Interactive shape modeling using leap motion controller. , 2017, , .		5
53	Partial Differential Equations for Function Based Geometry Modelling within Visual Cyberworlds. , 2008, , .		4
54	Image-inspired haptic interaction. Computer Animation and Virtual Worlds, 2015, 26, 311-319.	0.7	4

#	ARTICLE	IF	CITATIONS
55	Haptic Interaction with a Polygon Mesh Reconstructed from Images. , 2016, , .		4
56	Problems of Human-Computer Interaction in Cyberworlds. Lecture Notes in Computer Science, 2016, , 1-22.	1.0	4
57	Virtual Knee Arthroscopy Using Haptic Devices and Real Surgical Images. Lecture Notes in Computer Science, 2014, , 436-447.	1.0	4
58	The Impact of a Number of Samples on Unsupervised Feature Extraction, Based on Deep Learning for Detection Defects in Printed Circuit Boards. Future Internet, 2022, 14, 8.	2.4	4
59	Automatic Reconstruction and Web Visualization of Complex PDE Shapes. , 2010, , .		3
60	Visual immersive mathematics in 3D web. , 2011, , .		3
61	Virtual Palpation for Medical Training in Cyberworlds. , 2012, , .		3
62	Interactive screenspace fragment rendering for direct illumination from area lights using gradient aware subdivision and radial basis function interpolation. Computers and Graphics, 2017, 64, 37-50.	1.4	3
63	Multiple linked-view exploration on large displays facilitated by a secondary handheld device. , 2019, , .		3
64	Generation of Music With Dynamics Using Deep Convolutional Generative Adversarial Network. , 2021, , .		3
65	Towards a Definition of Virtual Objects Using Partial Differential Equations. , 2009, , .		2
66	Segmentation of MRI brain data using a haptic device. , 2010, , .		2
67	Design and implementation of a haptics-based virtual venepuncture simulation and training system. , 2012, , .		2
68	Interactive free-form shape modeling in cyberworlds. Visual Computer, 2013, 29, 1027-1037.	2.5	2
69	Towards Meniscus Elasticity Simulation in Virtual Knee Arthroscopy. , 2015, , .		2
70	Procedural Modeling of Round Building Geometry. , 2016, , .		2
71	Assessing haptic video interaction with neurocognitive tools. , 2016, , .		2
72	Interactive rendering of translucent materials under area lights using voxels and Poisson disk samples. Computers and Graphics, 2018, 71, 101-112.	1.4	2

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73	Self-supervised Pairing Image Clustering and Its Application in Cyber Manufacturing. , 2020, , .		2
74	Generation of Irregular Music Patterns With Deep Learning. , 2020, , .		2
75	Image-driven haptic simulation of arthroscopic surgery. Studies in Health Technology and Informatics, 2013, 184, 337-43.	0.2	2
76	Haptic Rendering of Mixed Haptic Effects. , 2010, , .		1
77	Towards Making Panoramic Images in Virtual Arthroscopy. , 2013, , .		1
78	Constructive Roof Geometry. , 2014, , .		1
79	Modeling arthroscopic camera with haptic devices in image-based virtual environments. , 2014, , .		1
80	Multisensory Experience with Images. , 2014, , .		1
81	Haptic Interaction with Video Streams Containing Depth Data. , 2015, , .		1
82	Neurocognitive Tools for Assessing Haptic Interaction. International Journal of Psychophysiology, 2016, 108, 147.	0.5	1
83	Interactive Screenspace Stream-Compaction Fragment Rendering of Direct Illumination from Area Lights. , 2016, , .		1
84	Tangible images of real life scenes. Computers and Graphics, 2017, 64, 62-73.	1.4	1
85	Voxel-Based Interactive Rendering of Translucent Materials under Area Lights Using Sparse Samples. , 2017, , .		1
86	Towards Asynchronous Video-Haptic Interaction in Cyberspace. , 2018, , .		1
87	Music in the Air with Leap Motion Controller. , 2019, , .		1
88	Constructive Roofs from Solid Building Primitives. Lecture Notes in Computer Science, 2016, , 17-40.	1.0	1
89	Eye-Tracking Based Adaptive Parallel Coordinates. , 2019, , .		1
90	Web Visualization of Function-Defined Shapes. Lecture Notes in Computer Science, 2003, , 428-437.	1.0	1

#	ARTICLE	IF	CITATIONS
91	RENDERING-ON-DEMAND SERVICE ACROSS HETEROGENEOUS GRID ENVIRONMENT. , 2007, , .		1
92	Playing digital music by waving hands in the air. , 2019, , .		1
93	Application of Generative Adversarial Networks and Latent Space Exploration in Music Visualisation. , 2021, , .		1
94	Hybrid Function-Based Shape Modeling and Web Visualization. , 2006, , .		0
95	Setting Cyber-Instructors in Cyberspace. , 2010, , .		0
96	Special issue on Cyberworlds 2010. Visual Computer, 2011, 27, 249-250.	2.5	0
97	Function-Based Haptic Interaction in Cyberworlds. , 2011, , .		0
98	A new approach to virtual palpation. , 2012, , .		0
99	Interactive Visualization of Mathematics in 3D Web. , 2012, , .		0
100	Preface to special issue on Cyberworlds 2011. Visual Computer, 2013, 29, 97-98.	2.5	0
101	Preface to the special section on Cyberworlds 2015. Visual Computer, 2016, 32, 1291-1292.	2.5	0
102	Foreword to the Special Issue on 2016 International Conference on Cyberworlds (CYBERWORLDS) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.4	0
103	Adding a sense of touch to online shopping. , 2017, , .		0
104	Tangible Video Communication over the Internet. , 2018, , .		0
105	Interactive Cutting of Thin Deformable Objects. Symmetry, 2018, 10, 17.	1.1	0
106	Virtual Campus of Nanyan Technological University. , 2006, , 478-481.		0
107	A Framework for Visual and Haptic Collaboration in Shared Virtual Spaces. Lecture Notes in Computer Science, 2010, , 564-573.	1.0	0
108	Reconstructing Multiresolution Mesh for Web Visualization Based on PDE Resampling. Lecture Notes in Computer Science, 2011, , 36-55.	1.0	0

#	ARTICLE	IF	CITATIONS
109	Anomaly Detection and Segmentation Based on Defect Repaired Image Resynthesis. , 2021, , .		0