

# Alexei I Sourin

## List of Publications by Year in descending order

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Version: 2024-02-01

109  
papers

1,392  
citations

471509

17  
h-index

395702

33  
g-index

111  
all docs

111  
docs citations

111  
times ranked

784  
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-supervised pairing image clustering for automated quality control. Visual Computer, 2022, 38, 1181-1194.	3.5	6
2	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.	3.8	4
3	Detection and segmentation of image anomalies based on unsupervised defect reparation. Visual Computer, 2021, 37, 3093-3102.	3.5	9
4	Anomaly Detection and Segmentation Based on Defect Repaired Image Resynthesis. , 2021, , .		0
5	Application of Generative Adversarial Networks and Latent Space Exploration in Music Visualisation. , 2021, , .		1
6	Generation of Music With Dynamics Using Deep Convolutional Generative Adversarial Network. , 2021, , .		3
7	Soldering defect detection in automatic optical inspection. Advanced Engineering Informatics, 2020, 43, 101004.	8.0	75
8	Interactive visual labelling versus active learning: an experimental comparison. Frontiers of Information Technology and Electronic Engineering, 2020, 21, 524-535.	2.6	10
9	Self-supervised Pairing Image Clustering and Its Application in Cyber Manufacturing. , 2020, , .		2
10	Generation of Irregular Music Patterns With Deep Learning. , 2020, , .		2
11	Interactive labelling of a multivariate dataset for supervised machine learning using linked visualisations, clustering, and active learning. Visual Informatics, 2019, 3, 9-17.	4.4	36
12	One class based feature learning approach for defect detection using deep autoencoders. Advanced Engineering Informatics, 2019, 42, 100933.	8.0	62
13	Music in the Air with Leap Motion Controller. , 2019, , .		1
14	Multiple linked-view exploration on large displays facilitated by a secondary handheld device. , 2019, , .		3
15	Eye-Tracking Based Adaptive Parallel Coordinates. , 2019, , .		1
16	Playing digital music by waving hands in the air. , 2019, , .		1
17	Interactive rendering of translucent materials under area lights using voxels and Poisson disk samples. Computers and Graphics, 2018, 71, 101-112.	2.5	2
18	Mid-air interaction with optical tracking for 3D modeling. Computers and Graphics, 2018, 74, 1-11.	2.5	15

#	ARTICLE	IF	CITATIONS
19	Towards Asynchronous Video-Haptic Interaction in Cyberspace. , 2018, , .		1
20	Unsupervised Surface Defect Detection Using Deep Autoencoders and Data Augmentation. , 2018, , .		24
21	Towards Automatic Optical Inspection of Soldering Defects. , 2018, , .		8
22	Tangible Video Communication over the Internet. , 2018, , .		0
23	Interactive Cutting of Thin Deformable Objects. Symmetry, 2018, 10, 17.	2.2	0
24	Procedural modeling of architecture with round geometry. Computers and Graphics, 2017, 64, 14-25.	2.5	17
25	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.	2.5	3
26	Tangible images of real life scenes. Computers and Graphics, 2017, 64, 62-73.	2.5	1
27	Foreword to the Special Issue on 2016 International Conference on Cyberworlds (CYBERWORLDS) Tj ETQq1 1 0.784314 rgBT <sub>0</sub> /Overlo	2.5	0
28	Case Study: Shared Virtual and Augmented Environments for Creative Applications. SpringerBriefs in Computer Science, 2017, , 49-64.	0.2	11
29	Adding a sense of touch to online shopping. , 2017, , .		0
30	Interactive shape modeling using leap motion controller. , 2017, , .		5
31	Voxel-Based Interactive Rendering of Translucent Materials under Area Lights Using Sparse Samples. , 2017, , .		1
32	Haptic Interaction with a Polygon Mesh Reconstructed from Images. , 2016, , .		4
33	Exploration of Natural Free-Hand Interaction for Shape Modeling Using Leap Motion Controller. , 2016, , .		10
34	Procedural Modeling of Round Building Geometry. , 2016, , .		2
35	Real-time haptic interaction with RGBD video streams. Visual Computer, 2016, 32, 1311-1321.	3.5	14
36	Understanding People's Mental Models of Mid-Air Interaction for Virtual Assembly and Shape Modeling. , 2016, , .		13

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37	Neurocognitive Tools for Assessing Haptic Interaction. International Journal of Psychophysiology, 2016, 108, 147.	1.0	1
38	Problems of Human-Computer Interaction in Cyberworlds. Lecture Notes in Computer Science, 2016, , 1-22.	1.3	4
39	Assessing haptic video interaction with neurocognitive tools. , 2016, , .		2
40	Interactive Screenspace Stream-Compaction Fragment Rendering of Direct Illumination from Area Lights. , 2016, , .		1
41	Preface to the special section on Cyberworlds 2015. Visual Computer, 2016, 32, 1291-1292.	3.5	0
42	Mid-Air Gestures for Virtual Modeling with Leap Motion. Lecture Notes in Computer Science, 2016, , 221-230.	1.3	8
43	Constructive Roofs from Solid Building Primitives. Lecture Notes in Computer Science, 2016, , 17-40.	1.3	1
44	Towards Meniscus Elasticity Simulation in Virtual Knee Arthroscopy. , 2015, , .		2
45	Haptic Interaction with Video Streams Containing Depth Data. , 2015, , .		1
46	Image-inspired haptic interaction. Computer Animation and Virtual Worlds, 2015, 26, 311-319.	1.2	4
47	Feasibility Study on Free Hand Geometric Modelling Using Leap Motion in VRML/X3D. , 2014, , .		12
48	Constructive Roof Geometry. , 2014, , .		1
49	Modeling arthroscopic camera with haptic devices in image-based virtual environments. , 2014, , .		1
50	Multisensory Experience with Images. , 2014, , .		1
51	Image-Driven Haptic Rendering. Lecture Notes in Computer Science, 2014, , 58-77.	1.3	9
52	Virtual Knee Arthroscopy Using Haptic Devices and Real Surgical Images. Lecture Notes in Computer Science, 2014, , 436-447.	1.3	4
53	Interactive free-form shape modeling in cyberworlds. Visual Computer, 2013, 29, 1027-1037.	3.5	2
54	Image-driven virtual simulation of arthroscopy. Visual Computer, 2013, 29, 333-344.	3.5	19

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55	Image-Driven Haptic Rendering in Virtual Environments. , 2013, , .		5
56	Preface to special issue on Cyberworlds 2011. Visual Computer, 2013, 29, 97-98.	3.5	0
57	Towards Making Panoramic Images in Virtual Arthroscopy. , 2013, , .		1
58	Towards hand-eye coordination training in virtual knee arthroscopy. , 2013, , .		5
59	Image-driven haptic simulation of arthroscopic surgery. Studies in Health Technology and Informatics, 2013, 184, 337-43.	0.3	2
60	Design and implementation of a haptics-based virtual venepuncture simulation and training system. , 2012, , .		2
61	A new approach to virtual palpation. , 2012, , .		0
62	Virtual Palpation for Medical Training in Cyberworlds. , 2012, , .		3
63	Interactive Visualization of Mathematics in 3D Web. , 2012, , .		0
64	Function-Based Single and Dual Point Haptic Interaction in Cyberworlds. Lecture Notes in Computer Science, 2012, , 1-16.	1.3	7
65	Function-based approach to mixed haptic effects rendering. Visual Computer, 2011, 27, 321-332.	3.5	14
66	Special issue on Cyberworlds 2010. Visual Computer, 2011, 27, 249-250.	3.5	0
67	Tangible images. , 2011, , .		15
68	Visual immersive mathematics in 3D web. , 2011, , .		3
69	Function-Based Haptic Interaction in Cyberworlds. , 2011, , .		0
70	Haptic interaction with 2D images. , 2011, , .		7
71	Reconstructing Multiresolution Mesh for Web Visualization Based on PDE Resampling. Lecture Notes in Computer Science, 2011, , 36-55.	1.3	0
72	A PDE method for patchwise approximation of large polygon meshes. Visual Computer, 2010, 26, 975-984.	3.5	13

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73	Segmentation of MRI brain data using a haptic device. , 2010, , .		2
74	Setting Cyber-Instructors in Cyberspace. , 2010, , .		0
75	Haptic Rendering of Mixed Haptic Effects. , 2010, , .		1
76	Towards Tangible Images and Video in Cyberworlds--Function-Based Approach. , 2010, , .		7
77	Automatic Reconstruction and Web Visualization of Complex PDE Shapes. , 2010, , .		3
78	A Framework for Visual and Haptic Collaboration in Shared Virtual Spaces. Lecture Notes in Computer Science, 2010, , 564-573.	1.3	0
79	Towards a Definition of Virtual Objects Using Partial Differential Equations. , 2009, , .		2
80	Visual immersive haptic mathematics. Virtual Reality, 2009, 13, 221-234.	6.1	12
81	Interactive surface-guided segmentation of brain MRI data. Computers in Biology and Medicine, 2009, 39, 1153-1160.	7.0	17
82	Collaboration in 3D Shared Spaces Using X3D and VRML. , 2009, , .		6
83	Function-based haptic collaboration in X3D. , 2009, , .		6
84	Visual Immersive Haptic Mathematics in Shared Virtual Spaces. Lecture Notes in Computer Science, 2009, , 1-19.	1.3	6
85	Function-based visualization and haptic rendering in shared virtual spaces. Visual Computer, 2008, 24, 871-880.	3.5	20
86	Partial Differential Equations for Function Based Geometry Modelling within Visual Cyberworlds. , 2008, , .		4
87	Visual immersive haptic rendering on the web. , 2008, , .		9
88	Physically based hydraulic erosion simulation on graphics processing unit. , 2007, , .		11
89	ORTHOPEDIC SURGERY TRAINING SIMULATION. Journal of Mechanics in Medicine and Biology, 2007, 07, 37-53.	0.7	11
90	Function-Based Haptic Interaction in Cyberworlds. , 2007, , .		8

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91	Interactive function-based shape modelling. Computers and Graphics, 2007, 31, 66-76.	2.5	10
92	RENDERING-ON-DEMAND SERVICE ACROSS HETEROGENEOUS GRID ENVIRONMENT. , 2007, , .		1
93	Hybrid Function-Based Shape Modeling and Web Visualization. , 2006, , .		0
94	ANALYSIS AND VISUALIZATION OF HUMAN ELECTROENCEPHALOGRAMS SEEN AS FRACTAL TIME SERIES. Journal of Mechanics in Medicine and Biology, 2006, 06, 175-188.	0.7	23
95	Cyber-Learning in Cyberworlds. Journal of Cases on Information Technology, 2006, 8, 55-70.	0.7	19
96	Human electroencephalograms seen as fractal time series: Mathematical analysis and visualization. Computers in Biology and Medicine, 2006, 36, 291-302.	7.0	91
97	Cybercampuses: design issues and future directions. Visual Computer, 2006, 22, 1015-1028.	3.5	39
98	Function-defined shape metamorphoses in visual cyberworlds. Visual Computer, 2006, 22, 977-990.	3.5	24
99	Function-based shape modelling extension of the Virtual Reality Modelling Language. Computers and Graphics, 2006, 30, 629-645.	2.5	26
100	Function-based shape modeling and visualization in X3D. , 2006, , .		6
101	Grid-based computer animation rendering. , 2006, , .		19
102	Virtual Campus of Nanyang Technological University. , 2006, , 478-481.		0
103	Function-based representation of complex geometry and appearance. , 2005, , .		17
104	Nanyang Technological University virtual campus [virtual reality project]. IEEE Computer Graphics and Applications, 2004, 24, 6-8.	1.2	37
105	Web Visualization of Function-Defined Shapes. Lecture Notes in Computer Science, 2003, , 428-437.	1.3	1
106	Functionally based virtual embossing. Visual Computer, 2001, 17, 258-271.	3.5	29
107	Using real functions with application to hair modelling. Computers and Graphics, 1996, 20, 11-19.	2.5	14
108	Function representation for sweeping by a moving solid. IEEE Transactions on Visualization and Computer Graphics, 1996, 2, 11-18.	4.4	45

#	ARTICLE	IF	CITATIONS
109	Function representation in geometric modeling: concepts, implementation and applications. Visual Computer, 1995, 11, 429-446.	3.5	349