Andreas Kolb

List of Publications by Year
in descending order

109 papers	2,898 citations	279487 23 h-index	214527 47 g-index
115 all docs	115 docs citations	115 times ranked	2587 citing authors

#	Article	IF	Citations
1	A Generative Model for Generic Light Field Reconstruction. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 1712-1724.	9.7	6
2	Deep Optimization Prior for THz Model Parameter Estimation. , 2022, , .		2
3	A Generic Framework for Depth Reconstruction Enhancement. Journal of Imaging, 2022, 8, 138.	1.7	0
4	Designing Technology, Developing Theory: Toward a Symmetrical Approach. Science Technology and Human Values, 2021, 46, 528-554.	1.7	2
5	Global Gradient Estimation of Hyperspectral Images for Registration Refinement in Multimodal Microspectroscopy. , 2021, , .		0
6	Optimized Refinement for Spatially Adaptive SPH. ACM Transactions on Graphics, 2021, 40, 1-15.	4.9	11
7	Multiâ€Level Memory Structures for Simulating and Rendering Smoothed Particle Hydrodynamics. Computer Graphics Forum, 2020, 39, 527-541.	1.8	3
8	Progressive Refinement Imaging. Computer Graphics Forum, 2020, 39, 360-374.	1.8	1
9	Semi-analytic boundary handling below particle resolution for smoothed particle hydrodynamics. ACM Transactions on Graphics, 2020, 39, 1-17.	4.9	8
10	Fast motion estimation for field sequential imaging: Survey and benchmark. Image and Vision Computing, 2019, 89, 170-182.	2.7	3
11	Computational Image Enhancement for Frequency Modulated Continuous Wave (FMCW) THz Image. Journal of Infrared, Millimeter, and Terahertz Waves, 2019, 40, 775-800.	1.2	28
12	Piecewise Rigid Scene Flow with Implicit Motion Segmentation. , 2019, , .		5
13	Multiresolution Analysis Pansharpening for the Fusion of Raman and Conventional Brightfield Microscopy Images. , 2019, , .		2
14	Supervised classification of monomodal and multimodal hyperspectral data in vibrational microspectroscopy: A comprehensive comparison. Chemometrics and Intelligent Laboratory Systems, 2019, 184, 112-122.	1.8	3
15	Supervised Deep Kriging for Single-Image Super-Resolution. Lecture Notes in Computer Science, 2019, , 638-649.	1.0	2
16	Training Auto-Encoder-Based Optimizers for Terahertz Image Reconstruction. Lecture Notes in Computer Science, 2019, , 93-106.	1.0	5
17	A Lightweight Approach to 3D Measurement of Chronic Wounds. Journal of WSCG, 2019, 27, .	0.6	3
18	Advanced signal processing techniques for THz imaging and sensing enhancement in material quality control applications. , 2019, , .		0

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19	State of the Art on 3D Reconstruction with RGBâ€Ð Cameras. Computer Graphics Forum, 2018, 37, 625-652.	1.8	191
20	Application of Pansharpening Algorithms for the Fusion of Raman and Conventional Brightfield Microscopy Images. , 2018, , .		1
21	Pulse Based Time-of-Flight Range Sensing. Sensors, 2018, 18, 1679.	2.1	25
22	Segmentation and Shape Extraction from Convolutional Neural Networks. , 2018, , .		1
23	Quantified, Interactive Simulation of AMCW ToF Camera Including Multipath Effects. Sensors, 2018, 18, 13.	2.1	23
24	Robust Range Camera Pose Estimation for Mobile Online Scene Reconstruction. IEEE Sensors Journal, 2018, 18, 2903-2915.	2.4	6
25	Comprehensive Use of Curvature for Robust and Accurate Online Surface Reconstruction. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 2349-2365.	9.7	29
26	Infinite continuous adaptivity for incompressible SPH. ACM Transactions on Graphics, 2017, 36, 1-10.	4.9	35
27	Evaporation and condensation of SPH-based fluids. , 2017, , .		6
28	Visual Analysis of Confocal Raman Spectroscopy Data using Cascaded Transfer Function Design. Computer Graphics Forum, 2017, 36, 239-249.	1.8	0
29	Design of an Active Multispectral SWIR Camera System for Skin Detection and Face Verification. Journal of Sensors, 2016, 2016, 1-16.	0.6	34
30	Flow Driven GPGPU Programming combining Textual and Graphical Programming. , 2016, , .		2
31	Reliable face anti-spoofing using multispectral SWIR imaging. , 2016, , .		62
32	Fast GPU-based absolute intensity determination for energy-dispersive X-ray Laue diffraction. Journal of Instrumentation, 2016, 11, T01001-T01001.	0.5	2
33	Multi-view Multi-illuminant Intrinsic Dataset. , 2016, , .		5
34	Abstracting Data and Image Processing Systems using a Component-based Domain Specific Language. , 2016, , .		0
35	Online improvement of time-of-flight camera accuracy by automatic integration time adaption. , 2015, , .		3
36	Vector Field Visualization of Advectiveâ€Ðiffusive Flows. Computer Graphics Forum, 2015, 34, 481-490.	1.8	2

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37	Defocus deblurring and superresolution for time-of-flight depth cameras. , 2015, , .		2
38	Simulation of Time-of-Flight Sensors for Evaluation of Chip Layout Variants. IEEE Sensors Journal, 2015, 15, 4019-4026.	2.4	10
39	A Comprehensive Multi-Illuminant Dataset for Benchmarking of the Intrinsic Image Algorithms. , 2015, , .		9
40	Component based data and image processing systems — A conceptual and practical approach. , 2015, , .		0
41	Kinect range sensing: Structured-light versus Time-of-Flight Kinect. Computer Vision and Image Understanding, 2015, 139, 1-20.	3.0	300
42	Grid-free out-of-core voxelization to sparse voxel octrees on GPU. , 2015, , .		6
43	Imaging in scattering media using correlation image sensors and sparse convolutional coding. Optics Express, 2014, 22, 26338.	1.7	89
44	Robust Detection and Segmentation for Diagnosis of Vertebral Diseases Using Routine MR Images. Computer Graphics Forum, 2014, 33, 190-204.	1.8	54
45	Fast GPU-based spot extraction for energy-dispersive X-ray Laue diffraction. Journal of Instrumentation, 2014, 9, T11003-T11003.	0.5	4
46	Optical techniques for 3D surface reconstruction in computer-assisted laparoscopic surgery. Medical Image Analysis, 2013, 17, 974-996.	7.0	217
47	Simulation and Data-Processing Framework for Hybrid Synthetic Aperture THz Systems Including THz-Scattering. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 625-634.	2.0	6
48	Radviz-based visual analysis of multispectral images. , 2013, , .		0
49	Time-of-Flight camera based 3D point cloud reconstruction of a car. Computers in Industry, 2013, 64, 1099-1114.	5.7	10
50	Segmentation of pituitary adenoma: A graph-based method vs. a balloon inflation method. Computer Methods and Programs in Biomedicine, 2013, 110, 268-278.	2.6	11
51	Generic visual analysis for multi- and hyperspectral image data. Data Mining and Knowledge Discovery, 2013, 27, 117-145.	2.4	5
52	Efficient, robust, and scale-invariant decomposition of Raman spectra. , 2013, , .		2
53	Real-time motion artifacts compensation of ToF sensors data on GPU. Proceedings of SPIE, 2013, , .	0.8	5
54	Consistent surface model for SPH-based fluid transport. , 2013, , .		10

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55	High-quality computational imaging through simple lenses. ACM Transactions on Graphics, 2013, 32, 1-14.	4.9	117
56	Material classification through distance aware multispectral data fusion. Measurement Science and Technology, 2013, 24, 045001.	1.4	1
57	Real-Time 3D Reconstruction in Dynamic Scenes Using Point-Based Fusion. , 2013, , .		246
58	Efficient and accurate linear spectral unmixing. , 2013, , .		0
59	Technical Foundation and Calibration Methods for Time-of-Flight Cameras. Lecture Notes in Computer Science, 2013, , 3-24.	1.0	37
60	Real-Time Motion Artifact Compensation for PMD-ToF Images. Lecture Notes in Computer Science, 2013, , 273-288.	1.0	13
61	Ground Truth for Evaluating Time of Flight Imaging. Lecture Notes in Computer Science, 2013, , 52-74.	1.0	5
62	Temporal Blending for Adaptive SPH. Computer Graphics Forum, 2012, 31, 2436-2449.	1.8	38
63	Stand-off real-time synthetic imaging at mm-wave frequencies. , 2012, , .		8
64	Preoperative volume determination for pituitary adenoma. Proceedings of SPIE, 2011, , .	0.8	3
65	GPU-Based Multilevel Clustering. IEEE Transactions on Visualization and Computer Graphics, 2011, 17, 132-145.	2.9	8
66	Interactive Simulation and Visualization of Lamb Wave Propagation in Isotropic and Anisotropic Structures. Journal of Physics: Conference Series, 2011, 305, 012095.	0.3	9
67	Dynamic terrain rendering. 3D Research, 2010, 1, 1.	1.8	3
68	Time-of-Flight sensor calibration for accurate range sensing. Computer Vision and Image Understanding, 2010, 114, 1318-1328.	3.0	188
69	Special issue on Time-of-Flight camera based computer vision. Computer Vision and Image Understanding, 2010, 114, 1317.	3.0	5
70	Timeâ€ofâ€Flight Cameras in Computer Graphics. Computer Graphics Forum, 2010, 29, 141-159.	1.8	250
71	Cooperative bin-picking with Time-of-Flight camera and impedance controlled DLR lightweight robot III. , 2010, , .		25
72	Visual assistance tools for interactive visualization of remote sensing data. , 2010, , .		1

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73	GPU-based framework for distributed interactive 3D visualization of multimodal remote sensing data. , 2009, , .		8
74	Immersive Rear Projection on Curved Screens. , 2009, , .		2
75	Time-Adaptive Lines for the Interactive Visualization of Unsteady Flow Data Sets. Computer Graphics Forum, 2009, 28, 2165-2175.	1.8	7
76	Real-time simulation of time-of-flight sensors. Simulation Modelling Practice and Theory, 2009, 17, 967-978.	2.2	38
77	Evolution analysis with animated and 3D-visualizations. , 2009, , .		1
78	Compensation of Motion Artifacts for Time-of-Flight Cameras. Lecture Notes in Computer Science, 2009, , 16-27.	1.0	37
79	Classifying Volume Datasets Based on Intensities and Geometric Features. Studies in Computational Intelligence, 2009, , 63-86.	0.7	0
80	Virtuelle Rekonstruktion und interaktive Exploration der Schlossanlage Dillenburg. , 2009, , 119-138.		0
81	GPU-Based Spherical Light Field Rendering with Per-Fragment Depth Correction. Computer Graphics Forum, 2008, 27, 2081-2095.	1.8	8
82	Particle Level Set Advection for the Interactive Visualization of Unsteady 3D Flow. Computer Graphics Forum, 2008, 27, 719-726.	1.8	5
83	Raycasting of Light Field Galleries from Volumetric Data. Computer Graphics Forum, 2008, 27, 839-846.	1.8	9
84	Interactive Dynamic Range Reduction for SAR Images. IEEE Geoscience and Remote Sensing Letters, 2008, 5, 507-511.	1.4	11
85	New insights into the calibration of ToF-sensors. , 2008, , .		14
86	Variational Multilevel Mesh Clustering. , 2008, , .		4
87	ToF-sensors: New dimensions for realism and interactivity. , 2008, , .		41
88	Spherical light field rendering in application for analysis by synthesis. International Journal of Intelligent Systems Technologies and Applications, 2008, 5, 304.	0.2	4
89	Automatic Point Target Detection for Interactive Visual Analysis of SAR Images. , 2008, , .		4
90	Sub-pixel data fusion and edge-enhanced distance refinement for 2D/3D images. International Journal of Intelligent Systems Technologies and Applications, 2008, 5, 344.	0.2	33

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91	GPu-based framework for interactive visualization of SAR data. , 2007, , .		4
92	A Simulation Framework for Time-Of-Flight Sensors. , 2007, , .		13
93	Calibration of the intensity-related distance error of the PMD TOF-camera. Proceedings of SPIE, 2007, , .	0.8	59
94	Data-Fusion of PMD-Based Distance-Information and High-Resolution RGB-Images. , 2007, , .		58
95	Supporting Structure from Motion with a 3D-Range-Camera. , 2007, , 233-242.		13
96	Bistatic Exploration using Spaceborne and Airborne SAR Sensors: A Close Collaboration Between FGAN, ZESS, and FOMAAS. , 2006, , .		17
97	Opacity Peeling for Direct Volume Rendering. Computer Graphics Forum, 2006, 25, 597-606.	1.8	54
98	Scientific computation for simulations on programmable graphics hardware. Simulation Modelling Practice and Theory, 2005, 13, 667-680.	2.2	28
99	Real time fusion of range and light field images. , 2005, , .		2
100	Hardware-based simulation and collision detection for large particle systems. Graphics Hardware, 2004, , .	0.0	74
101	Homomorphic factorization of BRDF-based lighting computation. ACM Transactions on Graphics, 2002, , .	4.9	25
102	Homomorphic factorization of BRDF-based lighting computation. ACM Transactions on Graphics, 2002, 21, 509-516.	4.9	11
103	Scattered Data Interpolation Using Data Dependant Optimization Techniques. Graphical Models, 2002, 64, 1-18.	1.1	8
104	An Object-Oriented Approach to Curves and Surfaces. , 1996, , 33-44.		0
105	Fair Surface Reconstruction Using Quadratic Functionals. Computer Graphics Forum, 1995, 14, 469-479.	1.8	5
106	Interpolating scattered data with C2 surfaces. CAD Computer Aided Design, 1995, 27, 277-282.	1.4	8
107	A platform for visualizing curves and surfaces. CAD Computer Aided Design, 1995, 27, 559-566.	1.4	1
108	Fair Surface Reconstruction Using Quadratic Functionals. Computer Graphics Forum, 1995, 14, 469-479.	1.8	1

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109	Human Action Recognition based on 3D Convolution Neural Networks from RGBD Videos. , 0, , .		0