Reinhard Klein

List of Publications by Year
in descending order

71 papers	3,009 citations	516710 16 h-index	223800 46 g-index
72 all docs	72 docs citations	72 times ranked	2637 citing authors

#	Article	IF	Citations
1	Towards Tangible Cultural Heritage Experiencesâ€"Enriching VR-based Object Inspection with Haptic Feedback. Journal on Computing and Cultural Heritage, 2022, 15, 1-17.	2.1	9
2	Parameter identification for the simulation of the periodontal ligament during the initial phase of orthodontic tooth movement. Computer Methods in Biomechanics and Biomedical Engineering, 2021, 24, 333-348.	1.6	2
3	10.1063/5.0047428.1. , 2021, , .		0
4	Teaching the incompressible Navierâ€"Stokes equations to fast neural surrogate models in three dimensions. Physics of Fluids, 2021, 33, .	4.0	21
5	Towards quantitative and intuitive percutaneous tumor puncture via augmented virtual reality. Computerized Medical Imaging and Graphics, 2021, 90, 101905.	5.8	10
6	Exploring shape spaces of 3D tree point clouds. Computers and Graphics, 2021, 100, 21-31.	2.5	1
7	Versatile multi-constrained planning for thermal ablation of large liver tumors. Computerized Medical Imaging and Graphics, 2021, 94, 101993.	5.8	3
8	3D superimposition of dental casts based on coloured landmark detection using combined computer vision and 3D computer graphics techniques. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2020, 8, 87-93.	1.9	1
9	Temporal Upsampling of Point Cloud Sequences by Optimal Transport for Plant Growth Visualization. Computer Graphics Forum, 2020, 39, 167-179.	3.0	8
10	Per-Image Super-Resolution for Material BTFs. , 2020, , .		0
11	Learned Fitting of Spatially Varying BRDFs. Computer Graphics Forum, 2019, 38, 193-205.	3.0	5
12	Real-Time Multi-Material Reflectance Reconstruction for Large-Scale Scenes Under Uncontrolled Illumination from RGB-D Image Sequences. , 2019, , .		1
13	Constraint-Based Optimized Human Skeleton Extraction from Single-Depth Camera. Sensors, 2019, 19, 2604.	3.8	15
14	Albedo estimation for real-time 3D reconstruction using RGB-D and IR data. ISPRS Journal of Photogrammetry and Remote Sensing, 2019, 150, 213-225.	11.1	4
15	Mixed reality based respiratory liver tumor puncture navigation. Computational Visual Media, 2019, 5, 363-374.	17.5	10
16	A VR System for Immersive Teleoperation and Live Exploration with a Mobile Robot. , 2019, , .		54
17	Inverse Procedural Modeling of Knitwear. , 2019, , .		3
18	Augmented Reality Guided Respiratory Liver Tumors Punctures: A Preliminary Feasibility Study. , 2019, , .		4

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19	State of the Art on 3D Reconstruction with RGBâ€Ð Cameras. Computer Graphics Forum, 2018, 37, 625-652.	3.0	191
20	Rapid material capture through sparse and multiplexed measurements. Computers and Graphics, 2018, 73, 26-36.	2.5	4
21	OctreeBTFs â€" A compact, seamless and distortion-free reflectance representation. Computers and Graphics, 2017, 68, 21-31.	2.5	1
22	An Efficient Statistical Data Representation for Real-Time Rendering of Metallic Effect Car Paints. Lecture Notes in Computer Science, 2017, , 51-68.	1.3	4
23	Perception and appearance bending of material properties. Journal of Vision, 2017, 17, 21.	0.3	0
24	Accurate Interactive Visualization of Large Deformations and Variability in Biomedical Image Ensembles. IEEE Transactions on Visualization and Computer Graphics, 2016, 22, 708-717.	4.4	18
25	Efficient multi-constrained optimization for example-based synthesis. Visual Computer, 2015, 31, 893-904.	3.5	1
26	Real-time point cloud compression. , 2015, , .		46
27	Advances in geometry and reflectance acquisition (course notes). , 2015, , .		33
28	Extrapolation of bidirectional texture functions using texture synthesis guided by photometric normals. Proceedings of SPIE, 2015, , .	0.8	1
29	Multiplexed acquisition of bidirectional texture functions for materials. Proceedings of SPIE, 2015, , .	0.8	2
30	A visual analytics perspective on shape analysis: State of the art and future prospects. Computers and Graphics, 2015, 53, 63-71.	2.5	15
31	Material Recognition for Efficient Acquisition of Geometry and Reflectance. Lecture Notes in Computer Science, 2015, , 321-333.	1.3	5
32	Design and Implementation of Practical Bidirectional Texture Function Measurement Devices Focusing on the Developments at the University of Bonn. Sensors, 2014, 14, 7753-7819.	3.8	39
33	Are reflectance field renderings appropriate for optical flow evaluation?. , 2014, , .		3
34	A Visual Analytics Approach to Study Anatomic Covariation. , 2014, , .		7
35	Hybrid tree reconstruction from inhomogeneous point clouds. Visual Computer, 2014, 30, 763-771.	3.5	27
36	Material Classification Based on Training Data Synthesized Using a BTF Database. Lecture Notes in Computer Science, 2014, , 156-171.	1.3	48

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37	Example‐based Interpolation and Synthesis of Bidirectional Texture Functions. Computer Graphics Forum, 2013, 32, 361-370.	3.0	8
38	Non‐Local Image Reconstruction for Efficient Computation of Synthetic Bidirectional Texture Functions. Computer Graphics Forum, 2013, 32, 61-71.	3.0	1
39	Combining contour and shape primitives for object detection and pose estimation of prefabricated parts. , 2013, , .		14
40	Mobile bin picking with an anthropomorphic service robot. , 2013, , .		67
41	Data Driven Surface Reflectance from Sparse and Irregular Samples. Computer Graphics Forum, 2012, 31, 315-324.	3.0	12
42	Semantically steered visual analysis of highly detailed morphometric shape spaces. , 2011, , .		6
43	A Multi-camera, Multi-projector Super-Resolution Framework for Structured Light. , 2011, , .		29
44	Spectralization: Reconstructing spectra from sparse data. Computer Graphics Forum, 2010, 29, 1347-1354.	3.0	8
45	Patch‐based Texture Interpolation. Computer Graphics Forum, 2010, 29, 1421-1429.	3.0	14
46	BTF‐CIELab: A Perceptual Difference Measure for Quality Assessment and Compression of BTFs. Computer Graphics Forum, 2009, 28, 101-113.	3.0	20
47	Completion and Reconstruction with Primitive Shapes. Computer Graphics Forum, 2009, 28, 503-512.	3.0	91
48	Heightfield and spatially varying BRDF Reconstruction for Materials with Interreflections. Computer Graphics Forum, 2009, 28, 513-522.	3.0	21
49	BTF Compression via Sparse Tensor Decomposition. Computer Graphics Forum, 2009, 28, 1181-1188.	3.0	33
50	Variational Surface Approximation and Model Selection. Computer Graphics Forum, 2009, 28, 1985-1994.	3.0	8
51	Photo‐realistic Rendering of Metallic Car Paint from Image‐Based Measurements. Computer Graphics Forum, 2008, 27, 527-536.	3.0	51
52	Fast vector quantization for efficient rendering of compressed point-clouds. Computers and Graphics, 2008, 32, 246-259.	2.5	15
53	Simple and Efficient Mesh Editing with Consistent Local Frames. , 2007, , .		44
54	Texture Atlas Generation for Inconsistent Meshes and Point Sets. , 2007, , .		6

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55	Efficient RANSAC for Point-Cloud Shape Detection. Computer Graphics Forum, 2007, 26, 214-226.	3.0	1,398
56	Markerless 4 gestures 6 DOF real-time visual tracking of the human hand with automatic initialization. Computer Graphics Forum, 2007, 26, 467-476.	3.0	10
57	Visualization aspects in the MERCW project. , 2006, , .		0
58	Data-driven Local Coordinate Systems for Image-Based Rendering. Computer Graphics Forum, 2006, 25, 369-378.	3.0	11
59	GPU-based Collision Detection for Deformable Parameterized Surfaces. Computer Graphics Forum, 2006, 25, 497-506.	3.0	36
60	Acquisition, Synthesis, and Rendering of Bidirectional Texture Functions. Computer Graphics Forum, 2005, 24, 83-109.	3.0	82
61	Interactive fragment tracing. Visual Computer, 2005, 21, 591-600.	3.5	4
62	GPU-based trimming and tessellation of NURBS and T-Spline surfaces. ACM Transactions on Graphics, 2005, 24, 1016-1023.	7.2	65
63	Shape retrieval using 3D Zernike descriptors. CAD Computer Aided Design, 2004, 36, 1047-1062.	2.7	264
64	Automatic texture atlas generation from trimmed NURBS models. Computer Graphics Forum, 2003, 22, 453-461.	3.0	3
65	A geometric approach to 3D object comparison. , 0, , .		58
66	Fast and memory efficient view-dependent trimmed NURBS rendering. , 0, , .		4
67	Efficient representation and extraction of 2-manifold isosurfaces using kd-trees. , 0, , .		1
68	'Visual-fidelity' dataglove calibration. , 0, , .		20
69	Consistent normal orientation for polygonal meshes. , 0, , .		4
70	Fast environmental lighting for local-PCA encoded BTFs. , 0, , .		4
71	Probabilistic motion sequence generation. , 0, , .		1