Henry Fuchs

List of Publications by Year
in descending order

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95	5,091	185998	189595
papers	citations	28 h-index	50 g-index

96	96	96	2290
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The office of the future. , 1998, , .		581
2	Merging virtual objects with the real world. Computer Graphics, 1992, 26, 203-210.	0.1	300
3	On visible surface generation by a priori tree structures. , 1980, , .		281
4	Optical Versus Video See-Through Head-Mounted Displays in Medical Visualization. Presence: Teleoperators and Virtual Environments, 2000, 9, 287-309.	0.3	267
5	Augmented reality visualization for laparoscopic surgery. Lecture Notes in Computer Science, 1998, , 934-943.	1.0	172
6	Technologies for augmented reality systems. , 1996, , .		152
7	Encumbrance-free telepresence system with real-time 3D capture and display using commodity depth cameras. , 2011, , .		143
8	Fast spheres, shadows, textures, transparencies, and imgage enhancements in pixel-planes. Computer Graphics, 1985, 19, 111-120.	0.1	138
9	Pixel-planes 5: a heterogeneous multiprocessor graphics system using processor-enhanced memories. Computer Graphics, 1989, 23, 79-88.	0.1	131
10	Wide Field Of View Varifocal Near-Eye Display Using See-Through Deformable Membrane Mirrors. IEEE Transactions on Visualization and Computer Graphics, 2017, 23, 1322-1331.	2.9	126
11	Evaluation of Reorientation Techniques and Distractors for Walking in Large Virtual Environments. IEEE Transactions on Visualization and Computer Graphics, 2009, 15, 383-394.	2.9	119
12	Augmented reality guidance for needle biopsies: An initial randomized, controlled trial in phantomsâ€â€A preliminary version of this paper was presented at the Medical Image Computing and Computer-Assisted Intervention (MICCAI) 2001 conference in Utrecht. The Netherlands (Rosenthal et) Tj ETQq0 0 0 rgBT /Overlock 10 T	7.0	112
13	Wirtinger holography for near-eye displays. ACM Transactions on Graphics, 2019, 38, 1-13.	4.9	105
14	Pinlight displays. ACM Transactions on Graphics, 2014, 33, 1-11.	4.9	100
15	3D scanning deformable objects with a single RGBD sensor. , 2015, , .		97
16	<title>Comparison of optical and video see-through, head-mounted displays</title>. , 1995, 2351, 293.		83
17	Image rendering by adaptive refinement. Computer Graphics, 1986, 20, 29-37.	0.1	81
18	Reducing interference between multiple structured light depth sensors using motion. , 2012, , .		80

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19	From Motion to Photons in 80 Microseconds: Towards Minimal Latency for Virtual and Augmented Reality. IEEE Transactions on Visualization and Computer Graphics, 2016, 22, 1367-1376.	2.9	75
20	Computational augmented reality eyeglasses. , 2013, , .		74
21	Near real-time shaded display of rigid objects. Computer Graphics, 1983, 17, 65-72.	0.1	71
22	Immersive 3D Telepresence. Computer, 2014, 47, 46-52.	1.2	71
23	Learned hardware-in-the-loop phase retrieval for holographic near-eye displays. ACM Transactions on Graphics, 2020, 39, 1-18.	4.9	71
24	A demonstrated optical tracker with scalable work area for head-mounted display systems. , 1992, , .		69
25	Improved Redirection with Distractors: A large-scale-real-walking locomotion interface and its effect on navigation in virtual environments. , 2010, 2010, 35-38.		69
26	Focus 3D. ACM Transactions on Graphics, 2013, 32, 1-13.	4.9	65
27	An Extended Depth-at-Field Volumetric Near-Eye Augmented Reality Display. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 2857-2866.	2.9	64
28	An evaluation of navigational ability comparing Redirected Free Exploration with Distractors to Walking-in-Place and joystick locomotio interfaces. , 2011, , 55-62.		61
29	Enhanced personal autostereoscopic telepresence system using commodity depth cameras. Computers and Graphics, 2012, 36, 791-807.	1.4	60
30	The Design and Evaluation of a Large-Scale Real-Walking Locomotion Interface. IEEE Transactions on Visualization and Computer Graphics, 2012, 18, 1053-1067.	2.9	58
31	Near real-time shaded display of rigid objects. , 1983, , .		55
32	Life-sized projector-based dioramas. , 2001, , .		55
33	FocusAR: Auto-focus Augmented Reality Eyeglasses for both Real World and Virtual Imagery. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 2906-2916.	2.9	54
34	Towards performing ultrasound-guided needle biopsies from within a head-mounted display. Lecture Notes in Computer Science, 1996, , 591-600.	1.0	53
35	General-purpose telepresence with head-worn optical see-through displays and projector-based lighting. , 2013, , .		49
36	Fast constructive-solid geometry display in the pixel-powers graphics system. Computer Graphics, 1986, 20, 107-116.	0.1	47

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37	Manufacturing Application-Driven Foveated Near-Eye Displays. IEEE Transactions on Visualization and Computer Graphics, 2019, 25, 1928-1939.	2.9	43
38	Pinlight displays. , 2014, , .		42
39	Minimizing latency for augmented reality displays: Frames considered harmful. , 2014, , .		38
40	Varifocal Occlusion-Capable Optical See-through Augmented Reality Display based on Focus-tunable Optics. IEEE Transactions on Visualization and Computer Graphics, 2019, 25, 3125-3134.	2.9	38
41	Distributing a visible surface algorithm over multiple processors. , 1977, , .		37
42	Head Mounted Displays for Medical Use. Journal of Display Technology, 2008, 4, 468-472.	1.3	37
43	Development of augmentedâ€reality applications in otolaryngologyâ€“head and neck surgery. Laryngoscope, 2019, 129, S1-S11.	1.1	34
44	Towards a Switchable AR/VR Near-eye Display with Accommodation-Vergence and Eyeglass Prescription Support. IEEE Transactions on Visualization and Computer Graphics, 2019, 25, 3114-3124.	2.9	33
45	An expandable multiprocessor architecture for video graphics (Preliminary Report). , 1979, , .		30
46	Towards Fully Mobile 3D Face, Body, and Environment Capture Using Only Head-worn Cameras. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 2993-3004.	2.9	30
47	Real-time volumetric 3D capture of room-sized scenes for telepresence. , 2012, , .		28
48	Adaptive Instant Displays: Continuously Calibrated Projections Using Per-Pixel Light Control. Computer Graphics Forum, 2005, 24, 705-714.	1.8	27
49	Augmented Reality Guidance for Needle Biopsies: A Randomized, Controlled Trial in Phantoms. Lecture Notes in Computer Science, 2001, , 240-248.	1.0	27
50	Generating smooth 2-D monocolor line drawings on video displays. Computer Graphics, 1979, 13, 260-269.	0.1	23
51	Gaze-Contingent Retinal Speckle Suppression for Perceptually-Matched Foveated Holographic Displays. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 4194-4203.	2.9	22
52	Real-Time Projector Tracking on Complex Geometry Using Ordinary Imagery. , 2007, , .		20
53	Animatronic shader lamps avatars. Virtual Reality, 2011, 15, 225-238.	4.1	19
54	Temporally enhanced 3D capture of room-sized dynamic scenes with commodity depth cameras. , 2014, , .		19

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55	Image rendering by adaptive refinement. , 1986, , .		18
56	Quadratic Surface Rendering on a Logic-Enhanced Frame-Buffer Memory. IEEE Computer Graphics and Applications, 1986, 6, 48-59.	1.0	17
57	A practical multi-viewer tabletop autostereoscopic display. , 2010, , .		17
58	VISTAnet: interactive real-time calculation and display of 3-dimensional radiation dose: An application of gigabit networking. International Journal of Radiation Oncology Biology Physics, 1993, 25, 123-129.	0.4	16
59	A Distributed Cooperative Framework for Continuous Multi-Projector Pose Estimation. , 2009, , .		16
60	Encumbrance-free telepresence system with real-time 3D capture and display using commodity depth cameras. , 2011, , .		16
61	A real-time optical 3D tracker for head-mounted display systems. Computer Graphics, 1990, 24, 205-215.	0.1	15
62	Three-Dimensional High-Resolution Volume Rendering (HRVR) of Computed Tomography Data. Laryngoscope, 1991, 101, 573???582.	1.1	14
63	Mitigating vergence-accommodation conflict for near-eye displays via deformable beamsplitters. , 2018, , .		14
64	Improved vergence and accommodation via Purkinje Image tracking with multiple cameras for AR glasses. , 2020, , .		14
65	Combining Head-Mounted and Projector-Based Displays for Surgical Training. Presence: Teleoperators and Virtual Environments, 2004, 13, 128-145.	0.3	12
66	Random Hole Display: A non-uniform barrier autostereoscopic display. , 2009, , .		12
67	Predetermining visibility priority in 3-D scenes (Preliminary Report). Computer Graphics, 1979, 13, 175-181.	0.1	11
68	Kinect Shadow Detection and Classification. , 2013, , .		9
69	Scene-adaptive high dynamic range display for low latency augmented reality. , 2017, , .		9
70	Hogel-Free Holography. ACM Transactions on Graphics, 2022, 41, 1-16.	4.9	9
71	Continual surface-based multi-projector blending for moving objects. , 2011, , .		8
72	Wide field of view compressive light field display using a multilayer architecture and tracked viewers. Journal of the Society for Information Display, 2014, 22, 525-534.	0.8	8

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73	Membrane AR. , 2017, , .		8
74	Real-world occlusion in optical see-through AR displays. , 2017, , .		8
75	10â€1: Towards Varifocal Augmented Reality Displays using Deformable Beamsplitter Membranes. Digest of Technical Papers SID International Symposium, 2018, 49, 92-95.	0.1	8
76	Simplified Belief Propagation for Multiple View Reconstruction. , 2006, , .		7
77	Systems for Display of Three-Dimensional Medical Image Data. , 1990, , 315-331.		7
78	Exploring the potential of video technologies for collaboration in emergency medical care: Part I. Information sharing. Journal of the Association for Information Science and Technology, 2008, 59, 2320-2334.	2.6	6
79	Exploring the potential of video technologies for collaboration in emergency medical care: Part II. Task performance. Journal of the Association for Information Science and Technology, 2008, 59, 2335-2349.	2.6	6
80	Optimizing placement of commodity depth cameras for known 3D dynamic scene capture. , 2017, , .		6
81	Implementation and Evaluation of a 50 kHz, <inline-formula> <tex-math notation="LaTeX">$28mumathrm{s}$</tex-math> </inline-formula> Motion-to-Pose Latency Head Tracking Instrument. IEEE Transactions on Visualization and Computer Graphics, 2019, 25, 1970-1980.	2.9	6
82	Mobile. Egocentric Human Body Motion Reconstruction Using Only Eyeglasses-mounted Cameras and a Few Body-worn Inertial Sensors. , 2021, , .		6
83	36.1: Wide Field of View Compressive Light Field Display using a Multilayer Architecture and Tracked Viewers. Digest of Technical Papers SID International Symposium, 2014, 45, 509-512.	0.1	5
84	Computing high quality phase-only holograms for holographic displays. , 2020, , .		5
85	Towards Eyeglass-style Holographic Near-eye Displays with Statically. , 2020, , .		5
86	Enhancing A Laparoscopy Training System with Augmented Reality Visualization. , 2019, , .		4
87	Optimizing a head-tracked stereo display system to guide hepatic tumor ablation. Studies in Health Technology and Informatics, 2008, 132, 126-31.	0.2	4
88	Immersive Learning Experiences for Surgical Procedures. Studies in Health Technology and Informatics, 2016, 220, 55-62.	0.2	4
89	Towards Efficient 3D Calibration for Different Types of Multi-view Autostereoscopic 3D Displays. , 2018, , .		3
90	Steerable application-adaptive near eye displays. , 2018, , .		3

#	Article	IF	Citations
91	Stimulating the Human Visual System Beyond Real World Performance in Future Augmented Reality Displays. , 2020, , .		3
92	Faster feedback for remote scene viewing with pan-tilt stereo camera. , 2016, , .		2
93	VLSI for Graphics. , 1987, , 281-294.		2
94	The A-Desk: A Unified Workspace of the Future. IEEE Computer Graphics and Applications, 2020, 40, 56-71.	1.0	1
95	VLSI-Intensive Graphics Systems. , 1988, , 221-240.		0