Christian Theobalt

List of Publications by Year
in descending order

198	13,451	38742 50	46799 89
papers	citations	h-index	g-index

199	199	199	5499
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Learn to Predict How Humans Manipulate Large-Sized Objects From Interactive Motions. IEEE Robotics and Automation Letters, 2022, 7, 4702-4709.	5.1	4
2	Learning Dynamic Textures for Neural Rendering of Human Actors. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 4009-4022.	4.4	14
3	Real-time Global Illumination Decomposition of Videos. ACM Transactions on Graphics, 2021, 40, 1-16.	7.2	8
4	Videoforensicshq: Detecting High-Quality Manipulated Face Videos. , 2021, , .		3
5	Neural monocular 3D human motion capture with physical awareness. ACM Transactions on Graphics, 2021, 40, 1-15.	7.2	3
6	Real-time deep dynamic characters. ACM Transactions on Graphics, 2021, 40, 1-16.	7.2	47
7	Neural monocular 3D human motion capture with physical awareness. ACM Transactions on Graphics, 2021, 40, 1-15.	7.2	40
8	Real-time deep dynamic characters. ACM Transactions on Graphics, 2021, 40, 1-16.	7.2	2
9	Learning Speech-driven 3D Conversational Gestures from Video. , 2021, , .		34
10	Fast Gravitational Approach for Rigid Point Set Registration With Ordinary Differential Equations. IEEE Access, 2021, 9, 79060-79079.	4.2	1
11	Pose-Guided Human Animation from a Single Image in the Wild. , 2021, , .		35
12	High-Fidelity Neural Human Motion Transfer from Monocular Video. , 2021, , .		14
13	Learning Complete 3D Morphable Face Models from Images and Videos. , 2021, , .		6
14	Monocular Reconstruction of Neural Face Reflectance Fields. , 2021, , .		3
15	Monocular Real-time Full Body Capture with Inter-part Correlations. , 2021, , .		32
16	i3DMM: Deep Implicit 3D Morphable Model of Human Heads. , 2021, , .		61
17	Towards High Fidelity Monocular Face Reconstruction with Rich Reflectance using Self-supervised Learning and Ray Tracing. , 2021, , .		25
18	EgoRenderer: Rendering Human Avatars from Egocentric Camera Images. , 2021, , .		5

#	Article	IF	Citations
19	Non-Rigid Neural Radiance Fields: Reconstruction and Novel View Synthesis of a Dynamic Scene From Monocular Video. , 2021, , .		139
20	Efficient and Differentiable Shadow Computation for Inverse Problems. , 2021, , .		9
21	Estimating Egocentric 3D Human Pose in Global Space. , 2021, , .		22
22	Neural actor. ACM Transactions on Graphics, 2021, 40, 1-16.	7.2	118
23	Deep Physics-aware Inference of Cloth Deformation for Monocular Human Performance Capture. , 2021, , .		11
24	High-Fidelity Monocular Face Reconstruction Based on an Unsupervised Model-Based Face Autoencoder. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 42, 357-370.	13.9	45
25	DeepDeform: Learning Non-Rigid RGB-D Reconstruction With Semi-Supervised Data. , 2020, , .		29
26	Combining Implicit Function Learning and Parametric Models for 3D Human Reconstruction. Lecture Notes in Computer Science, 2020, , 311-329.	1.3	74
27	HTML: A Parametric Hand Texture Model for 3D Hand Reconstruction and Personalization. Lecture Notes in Computer Science, 2020, , 54-71.	1.3	26
28	XNect. ACM Transactions on Graphics, 2020, 39, .	7.2	186
29	3D Morphable Face Modelsâ€"Past, Present, and Future. ACM Transactions on Graphics, 2020, 39, 1-38.	7.2	218
30	Deep relightable textures. ACM Transactions on Graphics, 2020, 39, 1-21.	7.2	31
31	RGB2Hands. ACM Transactions on Graphics, 2020, 39, 1-16.	7.2	47
32	PhysCap. ACM Transactions on Graphics, 2020, 39, 1-16.	7.2	78
33	Neural Dense Non-Rigid Structure from Motion with Latent Space Constraints. Lecture Notes in Computer Science, 2020, , 204-222.	1.3	20
34	DEMEA: Deep Mesh Autoencoders for Non-rigidly Deforming Objects. Lecture Notes in Computer Science, 2020, , 601-617.	1.3	19
35	Egocentric videoconferencing. ACM Transactions on Graphics, 2020, 39, 1-16.	7.2	9
36	Generative Model-Based Loss to the Rescue: A Method to Overcome Annotation Errors for Depth-Based Hand Pose Estimation. , 2020, , .		3

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37	Intrinsic Dynamic Shape Prior for Dense Non-Rigid Structure from Motion. , 2020, , .		4
38	Real-time pose and shape reconstruction of two interacting hands with a single depth camera. ACM Transactions on Graphics, 2019, 38, 1-13.	7.2	103
39	Text-based editing of talking-head video. ACM Transactions on Graphics, 2019, 38, 1-14.	7.2	150
40	Deep reflectance fields. ACM Transactions on Graphics, 2019, 38, 1-12.	7.2	59
41	Neural style-preserving visual dubbing. ACM Transactions on Graphics, 2019, 38, 1-13.	7.2	39
42	Neural Rendering and Reenactment of Human Actor Videos. ACM Transactions on Graphics, 2019, 38, 1-14.	7.2	84
43	LiveCap. ACM Transactions on Graphics, 2019, 38, 1-17.	7.2	150
44	Tex2Shape: Detailed Full Human Body Geometry From a Single Image. , 2019, , .		209
45	FML: Face Model Learning From Videos. , 2019, , .		102
46	Multi-Garment Net: Learning to Dress 3D People From Images. , 2019, , .		226
47	Convex Optimisation for Inverse Kinematics. , 2019, , .		8
48	C urve F usion. ACM Transactions on Graphics, 2019, 37, 1-12.	7.2	7
49	NRST: Non-rigid Surface Tracking from Monocular Video. Lecture Notes in Computer Science, 2019, , 335-348.	1.3	2
50	State of the Art on 3D Reconstruction with RGBâ€Ð Cameras. Computer Graphics Forum, 2018, 37, 625-652.	3.0	191
51	FingerInput. , 2018, , .		38
52	GANerated Hands for Real-Time 3D Hand Tracking from Monocular RGB. , 2018, , .		313
53	Video Based Reconstruction of 3D People Models. , 2018, , .		248
54	Detailed Human Avatars from Monocular Video. , 2018, , .		114

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55	FaceVR. ACM Transactions on Graphics, 2018, 37, 1-15.	7.2	84
56	Deep video portraits. ACM Transactions on Graphics, 2018, 37, 1-14.	7.2	327
57	Headon. ACM Transactions on Graphics, 2018, 37, 1-13.	7.2	76
58	MonoPerfCap. ACM Transactions on Graphics, 2018, 37, 1-15.	7.2	345
59	A Hybrid Model for Identity Obfuscation by Face Replacement. Lecture Notes in Computer Science, 2018, , 570-586.	1.3	58
60	Face2Face. Communications of the ACM, 2018, 62, 96-104.	4.5	103
61	Multi-view Performance Capture of Surface Details. International Journal of Computer Vision, 2017, 124, 96-113.	15.6	14
62	WatchSense. , 2017, , .		53
63	BundleFusion. ACM Transactions on Graphics, 2017, 36, 1-18.	7.2	208
64	Opt. ACM Transactions on Graphics, 2017, 36, 1-27.	7.2	33
65	VNect. ACM Transactions on Graphics, 2017, 36, 1-14.	7.2	683
66	BundleFusion. ACM Transactions on Graphics, 2017, 36, 1.	7.2	209
67	Real-Time Halfway Domain Reconstruction of Motion and Geometry. , 2016, , .		2
68	EgoCap. ACM Transactions on Graphics, 2016, 35, 1-11.	7.2	89
69	Video Depth-from-Defocus. , 2016, , .		9
70	General Automatic Human Shape and Motion Capture Using Volumetric Contour Cues. Lecture Notes in Computer Science, 2016, , 509-526.	1.3	50
71	Corrective 3D reconstruction of lips from monocular video. ACM Transactions on Graphics, 2016, 35, 1-11.	7.2	21
72	Model-based teeth reconstruction. ACM Transactions on Graphics, 2016, 35, 1-13.	7.2	44

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73	Demo of Face2Face. , 2016, , .		605
74	Real-Time Joint Tracking of a Hand Manipulating an Object from RGB-D Input. Lecture Notes in Computer Science, 2016, , 294-310.	1.3	114
75	Dense Wide-Baseline Scene Flow from Two Handheld Video Cameras. , 2016, , .		12
76	Model-Based Outdoor Performance Capture. , 2016, , .		26
77	Reconstruction of Personalized 3D Face Rigs from Monocular Video. ACM Transactions on Graphics, 2016, 35, 1-15.	7.2	134
78	VolumeDeform: Real-Time Volumetric Non-rigid Reconstruction. Lecture Notes in Computer Science, 2016, , 362-379.	1.3	146
79	Live intrinsic video. ACM Transactions on Graphics, 2016, 35, 1-14.	7.2	58
80	User-centric computational videography. , 2015, , .		7
81	HDR image noise estimation for denoising tone mapped images. , 2015, , .		5
82	Context-Guided Diffusion for Label Propagation on Graphs. , 2015, , .		11
83	Local high-order regularization on data manifolds. , 2015, , .		1
84	4D Model Flow: Precomputed Appearance Alignment for Real-time 4D Video Interpolation. Computer Graphics Forum, 2015, 34, 173-182.	3.0	10
85	Semi-supervised learning with explicit relationship regularization. , 2015, , .		4
86	A Versatile Scene Model with Differentiable Visibility Applied to Generative Pose Estimation. , 2015, , .		53
87	Real-time expression transfer for facial reenactment. ACM Transactions on Graphics, 2015, 34, 1-14.	7.2	248
88	Contrast-Use Metrics for Tone Mapping Images. , 2015, , .		4
89	Generalizing wave gestures from sparse examples for real-time character control. ACM Transactions on Graphics, 2015, 34, 1-12.	7.2	24
90	Efficient Learning of Image Super-Resolution and Compression Artifact Removal with Semi-Local Gaussian Processes. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2015, 37, 1792-1805.	13.9	55

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91	Shading-based refinement on volumetric signed distance functions. ACM Transactions on Graphics, 2015, 34, 1-14.	7.2	105
92	Investigating the Dexterity of Multi-Finger Input for Mid-Air Text Entry. , 2015, , .		77
93	Fast and robust hand tracking using detection-guided optimization. , 2015, , .		153
94	Real-Time Hand Tracking Using a Sum of Anisotropic Gaussians Model. , 2014, , .		42
95	Efficient Multi-view Performance Capture of Fine-Scale Surface Detail. , 2014, , .		5
96	Real-time non-rigid reconstruction using an RGB-D camera. ACM Transactions on Graphics, 2014, 33, 1-12.	7.2	307
97	Real-time shading-based refinement for consumer depth cameras. ACM Transactions on Graphics, 2014, 33, 1-10.	7.2	84
98	Automatic Face Reenactment. , 2014, , .		112
99	Interactive motion mapping for realâ€time character control. Computer Graphics Forum, 2014, 33, 273-282.	3.0	35
100	Human Performance Capture Using Multiple Handheld Kinects. Advances in Computer Vision and Pattern Recognition, 2014, , 91-108.	1.3	3
101	Modified GrabCut for human face segmentation. Ain Shams Engineering Journal, 2014, 5, 1083-1091.	6.1	9
102	Device effect on panoramic video+context tasks. , 2014, , .		5
103	Free-Viewpoint Video of Human Actors Using Multiple Handheld Kinects. IEEE Transactions on Cybernetics, 2013, 43, 1370-1382.	9.5	25
104	Capturing Relightable Human Performances under General Uncontrolled Illumination. Computer Graphics Forum, 2013, 32, 275-284.	3.0	30
105	Algorithms for 3D Shape Scanning with a Depth Camera. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 1039-1050.	13.9	66
106	Interactive Markerless Articulated Hand Motion Tracking Using RGB and Depth Data. , 2013, , .		143
107	Reconstructing detailed dynamic face geometry from monocular video. ACM Transactions on Graphics, 2013, 32, 1-10.	7.2	142
108	Markerless Motion Capture of Multiple Characters Using Multiview Image Segmentation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 2720-2735.	13.9	90

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109	Preference and artifact analysis for video transitions of places. ACM Transactions on Applied Perception, 2013, 10, 1-19.	1.9	3
110	Video collections in panoramic contexts. , 2013, , .		10
111	Sparse localized deformation components. ACM Transactions on Graphics, 2013, 32, 1-10.	7.2	106
112	Automatic noise modeling for ghost-free HDR reconstruction. ACM Transactions on Graphics, 2013, 32, 1-10.	7.2	56
113	On-set performance capture of multiple actors with a stereo camera. ACM Transactions on Graphics, 2013, 32, 1-11.	7.2	56
114	Personalization and Evaluation of a Real-Time Depth-Based Full Body Tracker. , 2013, , .		66
115	3D Semantic Parameterization for Human Shape Modeling: Application to 3D Animation. , 2013, , .		1
116	Real-Time Body Tracking with One Depth Camera and Inertial Sensors. , 2013, , .		70
117	Curvature-Aware Regularization on Riemannian Submanifolds. , 2013, , .		13
118	Preference and artifact analysis for video transitions of places. ACM Transactions on Applied Perception, 2013, 10, 1-19.	1.9	6
119	Capture of arm-muscle deformations using a depth-camera. , 2013, , .		6
120	A Data-Driven Approach for Real-Time Full Body Pose Reconstruction from a Depth Camera. Advances in Computer Vision and Pattern Recognition, 2013, , 71-98.	1.3	52
121	Monocular Pose Capture with a Depth Camera Using a Sums-of-Gaussians Body Model. Lecture Notes in Computer Science, 2013, , 415-424.	1.3	6
122	Denoising Strategies for Time-of-Flight Data. Lecture Notes in Computer Science, 2013, , 25-45.	1.3	11
123	Full-Body Human Motion Capture from Monocular Depth Images. Lecture Notes in Computer Science, 2013, , 188-206.	1.3	7
124	Lightweight binocular facial performance capture under uncontrolled lighting. ACM Transactions on Graphics, 2012, 31, 1-11.	7.2	105
125	Videoscapes. ACM Transactions on Graphics, 2012, 31, 1-12.	7.2	31
126	High detail marker based 3D reconstruction by enforcing multiview constraints. , 2012, , .		2

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127	Real-Time Reshaping of Humans. , 2012, , .		8
128	Performance Capture of Highâ€Speed Motion Using Staggered Multiâ€View Recording. Computer Graphics Forum, 2012, 31, 2019-2028.	3.0	3
129	Coherent Spatiotemporal Filtering, Upsampling and Rendering of RGBZ Videos. Computer Graphics Forum, 2012, 31, 247-256.	3.0	90
130	Automatically Rigging Multiâ€component Characters. Computer Graphics Forum, 2012, 31, 755-764.	3.0	20
131	Editorial for the Special Issue on 3D Data Processing, Visualization and Transmission. International Journal of Computer Vision, 2012, 97, 1-1.	15.6	1
132	Performance Capture of Interacting Characters with Handheld Kinects. Lecture Notes in Computer Science, 2012, , 828-841.	1.3	60
133	Match Graph Construction for Large Image Databases. Lecture Notes in Computer Science, 2012, , 272-285.	1.3	9
134	Background Inpainting for Videos with Dynamic Objects and a Free-Moving Camera. Lecture Notes in Computer Science, 2012, , 682-695.	1.3	59
135	Full Body Performance Capture under Uncontrolled and Varying Illumination: A Shading-Based Approach. Lecture Notes in Computer Science, 2012, , 757-770.	1.3	30
136	Efficient Learning-based Image Enhancement: Application to Super-resolution and Compression Artifact Removal. , 2012, , .		2
137	High-quality shape from multi-view stereo and shading under general illumination. , 2011, , .		92
138	Shading-based dynamic shape refinement from multi-view video under general illumination. , 2011, , .		74
139	Video-based characters. , 2011, , .		46
140	Video-based characters. ACM Transactions on Graphics, 2011, 30, 1-10.	7.2	51
141	Markerless motion capture of interacting characters using multi-view image segmentation. , 2011, , .		94
142	A data-driven approach for real-time full body pose reconstruction from a depth camera. , 2011, , .		164
143	Fast articulated motion tracking using a sums of Gaussians body model. , 2011, , .		141
144	Joint Estimation of Motion, Structure and Geometry from Stereo Sequences. Lecture Notes in Computer Science, 2010, , 568-581.	1.3	48

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145	Space-time visual effects as a post-production process. , 2010, , .		9
146	MovieReshape. ACM Transactions on Graphics, 2010, 29, 1-10.	7.2	72
147	Video-based reconstruction of animatable human characters. ACM Transactions on Graphics, 2010, 29, 1-10.	7.2	78
148	3D shape scanning with a time-of-flight camera. , 2010, , .		184
149	Optimal HDR reconstruction with linear digital cameras. , 2010, , .		107
150	Performance Capture from Multi-View Video. Geometry and Computing, 2010, , 127-149.	0.1	19
151	Video-based reconstruction of animatable human characters. , 2010, , .		17
152	MovieReshape. , 2010, , .		29
153	Real-time prosody-driven synthesis of body language. , 2009, , .		35
154	Real-time prosody-driven synthesis of body language. ACM Transactions on Graphics, 2009, 28, 1-10.	7.2	81
155	Multi-view image and ToF sensor fusion for dense 3D reconstruction. , 2009, , .		99
156	Motion capture using joint skeleton tracking and surface estimation. , 2009, , .		241
157	LidarBoost: Depth superresolution for ToF 3D shape scanning. , 2009, , .		142
158	Motion capture using joint skeleton tracking and surface estimation. , 2009, , .		32
159	LidarBoost: Depth superresolution for ToF 3D shape scanning. , 2009, , .		16
160	Automatic Conversion of Mesh Animations into Skeleton-based Animations. Computer Graphics Forum, 2008, 27, 389-397.	3.0	81
161	Highâ€speed Marching Cubes using HistoPyramids. Computer Graphics Forum, 2008, 27, 2028-2039.	3.0	60
162	Performance capture from sparse multi-view video. , 2008, , .		114

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163	Design and calibration of a multi-view TOF sensor fusion system. , 2008, , .		39
164	High-quality scanning using time-of-flight depth superresolution. , 2008, , .		85
165	Performance capture from sparse multi-view video. ACM Transactions on Graphics, 2008, 27, 1-10.	7.2	342
166	Dense correspondence finding for parametrization-free animation reconstruction from video. , 2008, , .		49
167	Robust fusion of dynamic shape and normal capture for high-quality reconstruction of time-varying geometry. , 2008, , .		36
168	Reconstructing Human Shape, Motion and Appearance from Multi-view Video. Signals and Communication Technology, 2008, , 29-57.	0.5	3
169	Video-based Capturing and Rendering of People. Computational Imaging and Vision, 2008, , 531-559.	0.6	0
170	Marker-less Deformable Mesh Tracking for Human Shape and Motion Capture. , 2007, , .		56
171	Eikonal rendering. , 2007, , .		21
172	Spatio-Temporal Registration Techniques for Relightable 3D Video. , 2007, , .		8
173	Eikonal rendering. ACM Transactions on Graphics, 2007, 26, 59.	7.2	57
174	A Simple Framework for Natural Animation of Digitized Models. Computer Graphics and Image Processing (SIBGRAPI), Proceedings of the Brazilian Symposium on, 2007, , .	0.0	1
175	Real-time quadtree analysis using HistoPyramids. , 2007, , .		4
176	Video-Driven Animation of Human Body Scans. , 2007, , .		9
177	Seeing People in Different Light-Joint Shape, Motion, and Reflectance Capture. IEEE Transactions on Visualization and Computer Graphics, 2007, 13, 663-674.	4.4	39
178	Rapid Animation of Laser-scanned Humans. , 2007, , .		9
179	A Simple Framework for Natural Animation of Digitized Models. , 2007, , .		6
180	Interactive Global Illumination Using Implicit Visibility. , 2007, , .		12

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181	High-Quality Reconstruction from Multiview Video Streams. IEEE Signal Processing Magazine, 2007, 24, 45-57.	5.6	13
182	3-D Time-Varying Scene Capture Technologiesâ€"A Survey. IEEE Transactions on Circuits and Systems for Video Technology, 2007, 17, 1568-1586.	8.3	78
183	Marker-Less 3D Feature Tracking for Mesh-Based Human Motion Capture. Lecture Notes in Computer Science, 2007, , 1-15.	1.3	13
184	GPU-based light wavefront simulation for real-time refractive object rendering. , 2007, , .		0
185	High-Quality Reconstruction from Multiview Video Streams. IEEE Signal Processing Magazine, 2007, 24, 45-57.	5.6	4
186	Automatic Learning of Articulated Skeletons from 3D Marker Trajectories. Lecture Notes in Computer Science, 2006, , 485-494.	1.3	24
187	Automatic generation of personalized human avatars from multi-view video. , 2005, , .		21
188	Joint motion and reflectance capture for relightable 3D video. , 2005, , .		5
189	Video-based rendering. , 2005, , .		9
190	Pitching a baseball. ACM Transactions on Graphics, 2004, 23, 540-547.	7.2	38
191	Pitching a baseball. , 2004, , .		11
192	COMBINING 2D FEATURE TRACKING AND VOLUME RECONSTRUCTION FOR ONLINE VIDEO-BASED HUMAN MOTION CAPTURE. International Journal of Image and Graphics, 2004, 04, 563-583.	1.5	13
193	Marker-free kinematic skeleton estimation from sequences of volume data. , 2004, , .		17
194	Combining 3D flow fields with silhouette-based human motion capture for immersive video. Graphical Models, 2004, 66, 333-351.	2.4	16
195	3D video. Computer Graphics, 2004, 38, 18-20.	0.1	2
196	Free-viewpoint video of human actors. , 2003, , .		201
197	Free-viewpoint video of human actors. ACM Transactions on Graphics, 2003, 22, 569-577.	7.2	330
198	System Description: Spass Version 1.0.0. Lecture Notes in Computer Science, 1999, , 378-382.	1.3	37