Adrian D M Hilton

List of Publications by Year
in descending order

208 papers	5,559 citations	257101 24 h-index	118652 62 g-index
214 all docs	214 docs citations	214 times ranked	3463 citing authors

#	Article	IF	Citations
1	Immersive audio-visual scene reproduction using semantic scene reconstruction from 360 cameras. Virtual Reality, 2022, 26, 823-838.	4.1	5
2	Temporally Coherent General Dynamic Scene Reconstruction. International Journal of Computer Vision, 2021, 129, 123-141.	10.9	4
3	Transfer Learning for Clinical Sleep Pose Detection Using a Single 2D IR Camera. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 290-299.	2.7	19
4	Multi-view Consistency Loss for Improved Single-Image 3D Reconstruction of Clothed People. Lecture Notes in Computer Science, 2021, , 71-88.	1.0	1
5	EdgeNet: Semantic Scene Completion from a Single RGB- D Image. , 2021, , .		9
6	Super-Resolution Appearance Transfer for 4D Human Performances. , 2021, , .		1
7	Deep Neural Models for Illumination Estimation and Relighting: A Survey. Computer Graphics Forum, 2021, 40, 315-331.	1.8	14
8	Dynamic Appearance Modelling from Minimal Cameras. , 2021, , .		0
9	Temporally Consistent 3D Human Pose Estimation Using Dual 360° Cameras. , 2021, , .		4
10	Deep4D: A Compact Generative Representation for Volumetric Video. Frontiers in Virtual Reality, 2021, 2, .	2.5	2
11	Acoustic Room Modelling Using 360 Stereo Cameras. IEEE Transactions on Multimedia, 2021, 23, 4117-4130.	5.2	2
12	Inpainting of Wide-Baseline Multiple Viewpoint Video. IEEE Transactions on Visualization and Computer Graphics, 2020, 26, 2417-2428.	2.9	3
13	Semantically Coherent 4D Scene Flow of Dynamic Scenes. International Journal of Computer Vision, 2020, 128, 319-335.	10.9	2
14	Real-Time Multi-person Motion Capture from Multi-view Video and IMUs. International Journal of Computer Vision, 2020, 128, 1594-1611.	10.9	22
15	Light Field Video for Immersive Content Production. Lecture Notes in Computer Science, 2020, , 33-64.	1.0	0
16	Immersive Virtual Reality Audio Rendering Adapted to the Listener and the Room. Lecture Notes in Computer Science, 2020, , 293-318.	1.0	2
17	Hybrid Modeling of Non-Rigid Scenes From RGBD Cameras. IEEE Transactions on Circuits and Systems for Video Technology, 2019, 29, 2391-2404.	5.6	6
18	Light Field Compression using Eigen Textures. , 2019, , .		3

#	Article	IF	Citations
19	Immersive Spatial Audio Reproduction for VR/AR Using Room Acoustic Modelling from 360Â° Images. , 2019, , .		30
20	OCEAN: Object-centric arranging network for self-supervised visual representations learning. Expert Systems With Applications, 2019, 125, 281-292.	4.4	4
21	Learning Dense Wide Baseline Stereo Matching for People. , 2019, , .		4
22	Tensor Factorisation and Transfer Learning for Sleep Pose Detection. , 2019, , .		2
23	U4D: Unsupervised 4D Dynamic Scene Understanding. , 2019, , .		8
24	Dynamic Surface Animation using Generative Networks. , 2019, , .		2
25	Fusing Visual and Inertial Sensors with Semantics for 3D Human Pose Estimation. International Journal of Computer Vision, 2019, 127, 381-397.	10.9	45
26	MSFD: Multi-Scale Segmentation-Based Feature Detection for Wide-Baseline Scene Reconstruction. IEEE Transactions on Image Processing, 2019, 28, 1118-1132.	6.0	27
27	3D Reconstruction from RGB-D Data. Advances in Computer Vision and Pattern Recognition, 2019, , 87-115.	0.9	3
28	Big Multimodal Visual Data Registration for Digital Media Production. , 2019, , 271-297.		0
29	An Audio-Visual System for Object-Based Audio: From Recording to Listening. IEEE Transactions on Multimedia, 2018, 20, 1919-1931.	5.2	22
30	Multiple Speaker Tracking in Spatial Audio via PHD Filtering and Depth-Audio Fusion. IEEE Transactions on Multimedia, 2018, 20, 1767-1780.	5.2	12
31	Multimodal Visual Data Registration for Web-Based Visualization in Media Production. IEEE Transactions on Circuits and Systems for Video Technology, 2018, 28, 863-877.	5.6	7
32	Hybrid Skeleton Driven Surface Registration for Temporally Consistent Volumetric Video. , 2018, , .		6
33	Human-Centric Scene Understanding from Single View 360 Video. , 2018, , .		3
34	Deep Autoencoder for Combined Human Pose Estimation and Body Model Upscaling. Lecture Notes in Computer Science, 2018, , 800-816.	1.0	34
35	Volumetric Performance Capture from Minimal Camera Viewpoints. Lecture Notes in Computer Science, 2018, , 591-607.	1.0	28
36	Real-Time Full Body Motion Control. , 2018, , 1975-1999.		0

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37	Particle Flow SMC-PHD Filter for Audio-Visual Multi-speaker Tracking. Lecture Notes in Computer Science, 2017, , 344-353.	1.0	11
38	Semantically Coherent Co-Segmentation and Reconstruction of Dynamic Scenes. , 2017, , .		32
39	Real-Time Full-Body Motion Capture from Video and IMUs. , 2017, , .		58
40	4D Temporally Coherent Light-Field Video. , 2017, , .		14
41	Total Capture: 3D Human Pose Estimation Fusing Video and Inertial Sensors. , 2017, , .		119
42	Deep Convolutional Networks for Marker-less Human Pose Estimation from Multiple Views. , 2016, , .		13
43	Room Layout Estimation with Object and Material Attributes Information Using a Spherical Camera. , 2016, , .		10
44	Mean-Shift and Sparse Sampling-Based SMC-PHD Filtering for Audio Informed Visual Speaker Tracking. IEEE Transactions on Multimedia, 2016, 18, 2417-2431.	5.2	28
45	4D Match Trees for Non-rigid Surface Alignment. Lecture Notes in Computer Science, 2016, , 213-229.	1.0	11
46	Temporally Coherent 4D Reconstruction of Complex Dynamic Scenes. , 2016, , .		43
47	Identity association using PHD filters in multiple head tracking with depth sensors. , 2016, , .		4
48	Big Data Analysis for Media Production. Proceedings of the IEEE, 2016, 104, 2085-2113.	16.4	6
49	Learning Markerless Human Pose Estimation from Multiple Viewpoint Video. Lecture Notes in Computer Science, 2016, , 871-878.	1.0	1
50	Real-Time Full Body Motion Control. , 2016, , 1-25.		0
51	4D Model Flow: Precomputed Appearance Alignment for Real-time 4D Video Interpolation. Computer Graphics Forum, 2015, 34, 173-182.	1.8	10
52	Perceived Emotionality of Linear and Non-Linear AUs Synthesised using a 3D Dynamic Morphable Facial Model. , 2015, , .		12
53	General Dynamic Scene Reconstruction from Multiple View Video. , 2015, , .		50
54	FaceDirector: Continuous Control of Facial Performance in Video. , 2015, , .		14

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55	Coverage evaluation of camera networks for facilitating big-data management in film production. , 2015, , .		2
56	Multi-modal big-data management for film production. , 2015, , .		1
57	Segmentation Based Features for Wide-Baseline Multi-view Reconstruction. , 2015, , .		7
58	Order Statistics of RANSAC and Their Practical Application. International Journal of Computer Vision, 2015, 111, 276-297.	10.9	13
59	Audio informed visual speaker tracking with SMC-PHD filter. , 2015, , .		3
60	Hybrid Skeletal-Surface Motion Graphs for Character Animation from 4D Performance Capture. ACM Transactions on Graphics, 2015, 34, 1-14.	4.9	29
61	Online interactive 4D character animation. , 2015, , .		3
62	Block world reconstruction from spherical stereo image pairs. Computer Vision and Image Understanding, 2015, 139, 104-121.	3.0	17
63	Covariance estimation for minimal geometry solvers via scaled unscented transformation. Computer Vision and Image Understanding, 2015, 130, 18-34.	3.0	0
64	Athlete pose estimation by non-sequential key-frame propagation. , 2014, , .		1
65	Hybrid 3D feature description and matching for multi-modal data registration. , 2014, , .		3
66	Influence of Colour and Feature Geometry on Multi-modal 3D Point Clouds Data Registration. , 2014, , .		8
67	A Layered Model of Human Body and Garment Deformation. , 2014, , .		43
68	Video Segmentation via Adaptive Higher-Order CRF with Windowed Dynamics. , 2014, , .		0
69	4D video textures for interactive character appearance. Computer Graphics Forum, 2014, 33, 371-380.	1.8	70
70	Intrinsic Textures for Relightable Free-Viewpoint Video. Lecture Notes in Computer Science, 2014, , 392-407.	1.0	7
71	Wide Baseline Multi-view Video Matting Using a Hybrid Markov Random Field. , 2014, , .		4
72	Error analysis of photometric stereo with colour lights. Pattern Recognition Letters, 2014, 48, 81-92.	2.6	8

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73	Optimal Representation of Multiple View Video. , 2014, , .		19
74	Introduction to the Use of Computer Vision in Sports. Advances in Computer Vision and Pattern Recognition, 2014, , 1-21.	0.9	1
75	Global Non-rigid Alignment of Surface Sequences. International Journal of Computer Vision, 2013, 102, 256-270.	10.9	60
76	Interactive Animation of 4D Performance Capture. IEEE Transactions on Visualization and Computer Graphics, 2013, 19, 762-773.	2.9	27
77	Planar urban scene reconstruction from spherical images using facade alignment. , 2013, , .		7
78	3D Scene Reconstruction from Multiple Spherical Stereo Pairs. International Journal of Computer Vision, 2013, 104, 94-116.	10.9	60
79	Evaluation of 3D Feature Descriptors for Multi-modal Data Registration. , 2013, , .		21
80	Learning Part-Based Models for Animation from Surface Motion Capture. , 2013, , .		4
81	Single-View RGBD-Based Reconstruction of Dynamic Human Geometry. , 2013, , .		11
82	Shape and Pose Space Deformation for Subject Specific Animation. , 2013, , .		12
83	Animation Control of Surface Motion Capture. IEEE Transactions on Cybernetics, 2013, 43, 1532-1545.	6.2	74
84	Athlete Pose Estimation from Monocular TV Sports Footage. , 2013, , .		17
85	Free-viewpoint video rendering for mobile devices. , 2013, , .		1
86	Layered view-dependent texture maps. , 2013, , .		2
87	High-fidelity facial performance capture with non-sequential temporal alignment. , 2012, , .		2
88	4D parametric motion graphs for interactive animation. , 2012, , .		32
89	High-Detail 3D Capture and Non-sequential Alignment of Facial Performance. , 2012, , .		23
90	Through-the-Lens Multi-camera Synchronisation and Frame-Drop Detection for 3D Reconstruction. , 2012, , .		5

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91	Space-Time Joint Multi-layer Segmentation and Depth Estimation. , 2012, , .		9
92	Outdoor Dynamic 3-D Scene Reconstruction. IEEE Transactions on Circuits and Systems for Video Technology, 2012, 22, 1611-1622.	5.6	32
93	Parametric animation of performanceâ€captured mesh sequences. Computer Animation and Virtual Worlds, 2012, 23, 101-111.	0.7	1
94	Compression Techniques for 3D Video Mesh Sequences. Lecture Notes in Computer Science, 2012, , 12-25.	1.0	2
95	Towards Optimal Non-rigid Surface Tracking. Lecture Notes in Computer Science, 2012, , 743-756.	1.0	13
96	On Cross-Spectral Stereo Matching using Dense Gradient Features. , 2012, , .		42
97	Through-the-Lens Synchronisation for Heterogeneous Camera Networks. , 2012, , .		2
98	A Comparative Study of Surface Representations Used in Statistical Human Models. Lecture Notes in Computer Science, 2012, , 102-113.	1.0	1
99	Real-Time Pose Estimation Using Constrained Dynamics. Lecture Notes in Computer Science, 2012, , 37-46.	1.0	1
100	A FACS valid 3D dynamic action unit database with applications to 3D dynamic morphable facial modeling. , 2011, , .		103
101	Space-time Editing of 3D Video Sequences. , 2011, , .		7
102	Efficient Dense Reconstruction from Video. , 2011, , .		4
103	3D-TV Production From Conventional Cameras for Sports Broadcast. IEEE Transactions on Broadcasting, 2011, 57, 462-476.	2.5	24
104	Calibration of Nodal and Free-Moving Cameras in Dynamic Scenes for Post-Production. , 2011, , .		4
105	Conference Introduction. , 2011, , .		0
106	Joint Multi-Layer Segmentation and Reconstruction forÂFree-Viewpoint Video Applications. International Journal of Computer Vision, 2011, 93, 73-100.	10.9	63
107	Cooperative patch-based 3D surface tracking. , 2011, , .		9
108	Hierarchical Shape Matching for Temporally Consistent 3D Video. , 2011, , .		13

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109	Temporal trimap propagation for video matting using inferential statistics. , 2011, , .		4
110	Global temporal registration of multiple non-rigid surface sequences. , 2011, , .		33
111	Parametric Control of Captured Mesh Sequences for Real-Time Animation. Lecture Notes in Computer Science, 2011, , 242-253.	1.0	10
112	Shape Similarity for 3D Video Sequences of People. International Journal of Computer Vision, 2010, 89, 362-381.	10.9	84
113	Natural image matting for multiple wide-baseline views. , 2010, , .		5
114	PDE-based disparity estimation with occlusion and texture handling for accurate depth recovery from a stereo image pair. , 2010, , .		1
115	ACM multimedia 2010 workshop on 3D video processing. , 2010, , .		0
116	Wide-baseline multi-view video segmentation for 3D reconstruction. , 2010, , .		7
117	Perception of linear and nonlinear motion properties using a FACS validated 3D facial model. , 2010, , .		31
118	A FACS validated 3D human facial model. , 2010, , .		1
119	Stereoscopic content production of complex dynamic scenes using a wide-baseline monoscopic camera set-up. , 2010, , .		3
120	Multiple View Wide-Baseline Trimap Propagation for Natural Video Matting. , 2010, , .		1
121	Temporal Alignment of 3D Video Sequences Using Shape and Appearance. , 2010, , .		9
122	Free-Viewpoint Video for TV Sport Production. Geometry and Computing, 2010, , 77-106.	0.1	5
123	Moving Camera Registration for Multiple Camera Setups in Dynamic Scenes. , 2010, , .		10
124	Environment modelling using spherical stereo imaging. , 2009, , .		4
125	Non-parametric natural image matting. , 2009, , .		4
126	Alpha matte estimation of natural images using local and global template correspondence. , 2009, , .		1

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127	Human motion synthesis from 3D video. , 2009, , .		40
128	Shape-Colour Histograms for matching 3D video sequences. , 2009, , .		10
129	Summarised hierarchical Markov models for speed-invariant action matching. , 2009, , .		0
130	Graph-based foreground extraction in extended color space. , 2009, , .		1
131	Surface motion graphs for character animation from 3D video. , 2009, , .		3
132	Objective quality assessment in free-viewpoint video production. Signal Processing: Image Communication, 2009, 24, 3-16.	1.8	26
133	The Multiple-Camera 3-D Production Studio. IEEE Transactions on Circuits and Systems for Video Technology, 2009, 19, 856-869.	5.6	43
134	3D action matching with key-pose detection. , 2009, , .		17
135	The i3DPost Multi-View and 3D Human Action/Interaction Database. , 2009, , .		119
136	Robust graph-cut scene segmentation and reconstruction for free-viewpoint video of complex dynamic scenes. , 2009, , .		34
137	Skeleton Driven Laplacian Volumetric Deformation. , 2009, , .		2
138	Mutual Illumination Correction for Compositing and Material Editing. , 2009, , .		0
139	Wide-Baseline Matte Propagation for Indoor Scenes. , 2009, , .		3
140	Model-Based Synthesis of Visual Speech Movements from 3D Video. Eurasip Journal on Audio, Speech, and Music Processing, 2009, 2009, 1-12.	1.3	3
141	Non-Parametric patch based video matting. , 2009, , .		2
142	Human motion synthesis from 3D video. , 2009, , .		0
143	Model-based human shape reconstruction from multiple views. Computer Vision and Image Understanding, 2008, 111, 179-194.	3.0	13
144	Objective Quality Assessment in Free-Viewpoint Video Production. , 2008, , .		24

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145	An empirical study of non-rigid surface feature matching. , 2008, , .		7
146	Example-based reflectance estimation for capturing relightable models of people. , 2008, , .		1
147	Region-based foreground extraction. , 2008, , .		1
148	Dual-Mode Deformable Models for Free-Viewpoint Video of Sports Events. , 2007, , .		19
149	2D face pose normalisation using a 3D morphable model. , 2007, , .		12
150	Correspondence labelling for wide-timeframe free-form surface matching. , 2007, , .		56
151	A Study of Shape Similarity for Temporal Surface Sequences of People. International Conference on 3-D Digital Imaging and Modeling, Proceedings, 2007, , .	0.0	9
152	Temporal 3D shape matching. , 2007, , .		4
153	High-resolution animation of facial dynamics. , 2007, , .		0
154	Recovering refined surface normals for relighting clothing in dynamic scenes. , 2007, , .		0
155	A Robust Free-Viewpoint Video System for Sport Scenes. , 2007, , .		22
156	Surface Capture for Performance-Based Animation. IEEE Computer Graphics and Applications, 2007, 27, 21-31.	1.0	362
157	A Bayesian Framework for Simultaneous Matting and 3D Reconstruction. International Conference on 3-D Digital Imaging and Modeling, Proceedings, 2007, , .	0.0	16
158	A Free-Viewpoint Video System for Visualization of Sport Scenes. Smpte Motion Imaging Journal, 2007, 116, 213-219.	0.2	21
159	Dynamic feathering: minimising blending artefacts in view-dependent rendering. , 2007, , .		2
160	Safe hulls. , 2007, , .		2
161	A Validated Method for Dense Non-rigid 3D Face Registration. , 2006, , .		26
162	Football player tracking for video annotation. , 2006, , 175.		4

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163	Visual speech synthesis from 3D video. , 2006, , 174.		2
164	3D reconstruction using spherical images. , 2006, , 179.		2
165	A survey of advances in vision-based human motion capture and analysis. Computer Vision and Image Understanding, 2006, 104, 90-126.	3.0	2,022
166	Viewpoint invariant exemplar-based 3D human tracking. Computer Vision and Image Understanding, 2006, 104, 178-189.	3.0	34
167	Modeling people: Vision-based understanding of a person's shape, appearance, movement, and behaviour. Computer Vision and Image Understanding, 2006, 104, 87-89.	3.0	13
168	Learnt inverse kinematics for animation synthesis. Graphical Models, 2006, 68, 472-483.	1.1	9
169	Exact View-Dependent Visual Hulls. , 2006, , .		12
170	Relightning of Facial Video. , 2006, , .		0
171	Learning Efficient Linear Predictors for Motion Estimation. Lecture Notes in Computer Science, 2006, , 445-456.	1.0	21
172	Projective surface refinement for free-viewpoint video. , 2006, , .		13
173	Representing dynamics of facial expressions. , 2006, , .		2
174	A comparative study of free-viewpoint video techniques for sports events. , 2006, , .		26
175	Appearance-based inner-lip detection. , 2006, , .		0
176	Model refinement by iterative normal-from-shading. , 2006, , .		0
177	Relighting of Dynamic Video. Journal of Multimedia, 2006, 1, .	0.3	1
178	Virtual view synthesis of people from multiple view video sequences. Graphical Models, 2005, 67, 600-620.	1.1	29
179	3-D studio production of animated actor models. IET Computer Vision, 2005, 152, 481.	1.3	2
180	Editorial: Visual media production. IET Computer Vision, 2005, 152, 385.	1.3	1

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181	Scene modelling from sparse 3D data. Image and Vision Computing, 2005, 23, 900-920.	2.7	20
182	Spherical matching for temporal correspondence of non-rigid surfaces. , 2005, , .		36
183	Video-based character animation. , 2005, , .		49
184	3D Assisted 2D Face Recognition: Methodology. Lecture Notes in Computer Science, 2005, , 1055-1065.	1.0	8
185	Animated statues. Machine Vision and Applications, 2003, 14, 248-259.	1.7	9
186	Computer vision for human modelling and analysis. Machine Vision and Applications, 2003, 14, 206-209.	1.7	1
187	A relaxation algorithm for real-time multiple view 3D-tracking. Image and Vision Computing, 2002, 20, 841-859.	2.7	31
188	Layered animation of captured data. Visual Computer, 2001, 17, 457-474.	2.5	20
189	Models for character animation. Software Focus, 2001, 2, 44-51.	0.3	8
190	A direct transform method for the analysis of laser Doppler anemometry engine data. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2001, 215, 725-738.	1.1	0
191	Geometric fusion for a hand-held 3D sensor. Machine Vision and Applications, 2000, 12, 44-51.	1.7	30
192	Whole-body modelling of people from multiview images to populate virtual worlds. Visual Computer, 2000, 16, 411-436.	2.5	72
193	Building Layered Animation Models from Captured Data. Eurographics, 1999, , 145-154.	0.4	10
194	Implicit Surface-Based Geometric Fusion. Computer Vision and Image Understanding, 1998, 69, 273-291.	3.0	58
195	Estimating pose uncertainty for surface registration. Image and Vision Computing, 1998, 16, 111-120.	2.7	25
196	Registration of multiple point sets. , 1996, , .		74
197	Statistics of surface curvature estimates. Pattern Recognition, 1995, 28, 1201-1221.	5.1	19
198	<title>Automatic inspection of loaded PCBs using 3D range data</title>. , 1994, 2183, 226.		1

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199	Speech-driven face synthesis from 3D video. , 0, , .		2
200	Towards reliable real-time multiview tracking. , 0, , .		5
201	From 3D shape capture of animated models. , 0, , .		18
202	Video-rate capture of dynamic face shape and appearance. , 0, , .		22
203	Multiple view reconstruction of people. , 0, , .		7
204	Spatio-Temporal Fusion of Multiple View Video Rate 3D Surfaces. , 0, , .		0
205	Relighting of Facial Images. , 0, , .		2
206	Algorithms for 3D-Assisted Face Recognition. , 0, , .		1
207	Visual analysis of lip coarticulation in VCV utterances. , 0, , .		0
208	4D Temporally Coherent Multi-Person Semantic Reconstruction and Segmentation. International Journal of Computer Vision, 0, , 1.	10.9	0