

David J Fleet

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

17,161
citations

159525

30
h-index

243529

44
g-index

67
all docs

67
docs citations

67
times ranked

14385
citing authors

#	ARTICLE	IF	CITATIONS
1	cryoSPARC: algorithms for rapid unsupervised cryo-EM structure determination. Nature Methods, 2017, 14, 290-296.	9.0	5,371
2	Performance of optical flow techniques. International Journal of Computer Vision, 1994, 12, 43-77.	10.9	3,618
3	TurboPixels: Fast Superpixels Using Geometric Flows. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2009, 31, 2290-2297.	9.7	954
4	Computation of component image velocity from local phase information. International Journal of Computer Vision, 1990, 5, 77-104.	10.9	849
5	Non-uniform refinement: adaptive regularization improves single-particle cryo-EM reconstruction. Nature Methods, 2020, 17, 1214-1221.	9.0	801
6	Gaussian Process Dynamical Models for Human Motion. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 283-298.	9.7	713
7	3D variability analysis: Resolving continuous flexibility and discrete heterogeneity from single particle cryo-EM. Journal of Structural Biology, 2021, 213, 107702.	1.3	550
8	Neural encoding of binocular disparity: Energy models, position shifts and phase shifts. Vision Research, 1996, 36, 1839-1857.	0.7	318
9	Human Cortical Activity Correlates With Stereoscopic Depth Perception. Journal of Neurophysiology, 2001, 86, 2054-2068.	0.9	269
10	Phase-based disparity measurement. CVGIP Image Understanding, 1991, 53, 198-210.	1.3	236
11	Cartesian K-Means. , 2013, , .		215
12	Model-Based 3D Hand Pose Estimation from Monocular Video. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2011, 33, 1793-1805.	9.7	212
13	Fast Exact Search in Hamming Space With Multi-Index Hashing. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 1107-1119.	9.7	178
14	Computing optical flow with physical models of brightness variation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2001, 23, 661-673.	9.7	166
15	Fast search in Hamming space with multi-index hashing. , 2012, , .		152
16	Measurement of Image Velocity. , 1992, , .		150
17	Optimizing walking controllers. ACM Transactions on Graphics, 2009, 28, 1-8.	4.9	124
18	Robustly Estimating Changes in Image Appearance. Computer Vision and Image Understanding, 2000, 78, 8-31.	3.0	111

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19	Probabilistic Detection and Tracking of Motion Boundaries. International Journal of Computer Vision, 2000, 38, 231-245.	10.9	103
20	Recursive filters for optical flow. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1995, 17, 61-67.	9.7	99
21	Multifactor Gaussian process models for style-content separation. , 2007, , .		93
22	Dynamical binary latent variable models for 3D human pose tracking. , 2010, , .		87
23	Computational analysis of non-Fourier motion. Vision Research, 1994, 34, 3057-3079.	0.7	86
24	Design and Use of Linear Models for Image Motion Analysis. International Journal of Computer Vision, 2000, 36, 171-193.	10.9	82
25	Model-based hand tracking with texture, shading and self-occlusions. , 2008, , .		75
26	Physics-Based Person Tracking Using the Anthropomorphic Walker. International Journal of Computer Vision, 2010, 87, 140-155.	10.9	75
27	Estimating contact dynamics. , 2009, , .		72
28	Hierarchical construction of orientation and velocity selective filters. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1989, 11, 315-325.	9.7	71
29	Spatiotemporal inseparability in early visual processing. Biological Cybernetics, 1985, 52, 153-164.	0.6	71
30	Temporal motion models for monocular and multiview 3D human body tracking. Computer Vision and Image Understanding, 2006, 104, 157-177.	3.0	69
31	Optimizing walking controllers for uncertain inputs and environments. ACM Transactions on Graphics, 2010, 29, 1-8.	4.9	57
32	The Kneed Walker for human pose tracking. , 2008, , .		50
33	Physics-Based Person Tracking Using Simplified Lower-Body Dynamics. , 2007, , .		45
34	Posebits for Monocular Human Pose Estimation. , 2014, , .		44
35	Building Proteins in a Day: Efficient 3D Molecular Structure Estimation with Electron Cryomicroscopy. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 706-718.	9.7	41
36	Second-order motions contribute to vection. Vision Research, 1998, 38, 2801-2816.	0.7	36

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37	Optimizing walking controllers. , 2009, , .		35
38	Bone graphs: Medial shape parsing and abstraction. Computer Vision and Image Understanding, 2011, 115, 1044-1061.	3.0	35
39	Synaptic Vesicle Mobility and Presynaptic F-Actin Are Disrupted in a N-ethylmaleimide-sensitive Factor Allele of Drosophila. Molecular Biology of the Cell, 2006, 17, 4709-4719.	0.9	32
40	Linear filtering precedes nonlinear processing in early vision. Current Biology, 1996, 6, 891-896.	1.8	31
41	Stereopsis from contrast envelopes. Vision Research, 1999, 39, 2313-2324.	0.7	29
42	Shared Kernel Information Embedding for Discriminative Inference. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2012, 34, 778-790.	9.7	28
43	Phase singularities in scale-space. Image and Vision Computing, 1991, 9, 338-343.	2.7	27
44	Object categorization using bone graphs. Computer Vision and Image Understanding, 2011, 115, 1187-1206.	3.0	26
45	Efficient Optimization for Sparse Gaussian Process Regression. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2015, 37, 2415-2427.	9.7	22
46	Human attributes from 3D pose tracking. Computer Vision and Image Understanding, 2012, 116, 648-660.	3.0	21
47	Texture space. Vision Research, 2001, 41, 745-757.	0.7	20
48	Human Attributes from 3D Pose Tracking. Lecture Notes in Computer Science, 2010, , 243-257.	1.0	19
49	Modeling Human Locomotion with Topologically Constrained Latent Variable Models. , 2007, , 104-118.		18
50	Linear and nonlinear transparencies in binocular vision. Proceedings of the Royal Society B: Biological Sciences, 1998, 265, 1837-1845.	1.2	14
51	Disparity tuning as simulated by a neural net. Biological Cybernetics, 2000, 83, 61-72.	0.6	11
52	Correction to "Gaussian Process Dynamical Models for Human Motion" [Feb 08 283-298]. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 1118-1118.	9.7	10
53	Video-Based People Tracking. , 2010, , 57-87.		10
54	Motion Models for People Tracking. , 2011, , 171-198.		9

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55	Spatiotemporal inseparability in early vision: centre-surround models and velocity selectivity. Computational Intelligence, 1985, 1, 89-102.	2.1	8
56	Building proteins in a day: Efficient 3D molecular reconstruction. , 2015, , .		8
57	Spinal Cord Segmentation by One Dimensional Normalized Template Matching: A Novel, Quantitative Technique to Analyze Advanced Magnetic Resonance Imaging Data. PLoS ONE, 2015, 10, e0139323.	1.1	7
58	Simultaneous Tracking and Activity Recognition. , 2011, , .		3
59	Walking on Thin Air: Environment-Free Physics-Based Markerless Motion Capture. , 2018, , .		2
60	The Extraction of Orientation and 2-D Velocity through Hierarchical Processing. , 1986, , .		0
61	Towards a Theory of Motion Understanding in Man and Machine. Kluwer International Series in Engineering and Computer Science, 1988, , 353-417.	0.2	0