Fredo Durand

List of Publications by Year
in descending order

49 papers	**11,316** citations	126907 **33** h-index	302126 **39** g-index
50 all docs	**50** docs citations	**50** times ranked	**6791** citing authors

#	Article	IF	Citations
1	Learning to predict where humans look. , 2009, , .		1,368
2	Fast bilateral filtering for the display of high-dynamic-range images. ACM Transactions on Graphics, 2002, 21, 257-266.	7.2	1,023
3	Image and depth from a conventional camera with a coded aperture. ACM Transactions on Graphics, 2007, 26, 70.	7.2	861
4	Eulerian video magnification for revealing subtle changes in the world. ACM Transactions on Graphics, 2012, 31, 1-8.	7.2	843
5	A Fast Approximation of the Bilateral Filter Using a Signal Processing Approach. International Journal of Computer Vision, 2009, 81, 24-52.	15.6	500
6	Phase-based video motion processing. ACM Transactions on Graphics, 2013, 32, 1-10.	7.2	499
7	Flash photography enhancement via intrinsic relighting. ACM Transactions on Graphics, 2004, 23, 673-678.	7.2	479
8	Modal identification of simple structures with high-speed video using motion magnification. Journal of Sound and Vibration, 2015, 345, 58-71.	3.9	381
9	Halide. ACM SIGPLAN Notices, 2013, 48, 519-530.	0.2	342
10	Bilateral Filtering: Theory and Applications. Foundations and Trends in Computer Graphics and Vision, 2008, 4, 1-75.	4.5	341
11	Real-time edge-aware image processing with the bilateral grid. ACM Transactions on Graphics, 2007, 26, 103.	7.2	338
12	Deep joint demosaicking and denoising. ACM Transactions on Graphics, 2016, 35, 1-12.	7.2	307
13	Non-iterative, feature-preserving mesh smoothing. ACM Transactions on Graphics, 2003, 22, 943-949.	7.2	297
14	Two-scale tone management for photographic look. ACM Transactions on Graphics, 2006, 25, 637-645.	7.2	268
15	The visual microphone. ACM Transactions on Graphics, 2014, 33, 1-10.	7.2	251
16	Motion magnification. ACM Transactions on Graphics, 2005, 24, 519-526.	7.2	215
17	Decoupling algorithms from schedules for easy optimization of image processing pipelines. ACM Transactions on Graphics, 2012, 31, 1-12.	7.2	192
18	Apparent ridges for line drawing. ACM Transactions on Graphics, 2007, 26, 19.	7.2	187

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19	Light Field Reconstruction Using Sparsity in the Continuous Fourier Domain. ACM Transactions on Graphics, 2014, 34, 1-13.	7.2	179
20	Defocus Magnification. Computer Graphics Forum, 2007, 26, 571-579.	3.0	169
21	Unstructured Light Fields. Computer Graphics Forum, 2012, 31, 305-314.	3.0	163
22	Real-time edge-aware image processing with the bilateral grid. , 2007, , .		159
23	Noise-optimal capture for high dynamic range photography. , 2010, , .		152
24	Fast Local Laplacian Filters. ACM Transactions on Graphics, 2014, 33, 1-14.	7.2	144
25	Video Camera–Based Vibration Measurement for Civil Infrastructure Applications. Journal of Infrastructure Systems, 2017, 23, .	1.8	130
26	Motion-invariant photography. ACM Transactions on Graphics, 2008, 27, 1-9.	7.2	126
27	Riesz pyramids for fast phase-based video magnification. , 2014, , .		124
28	A Topological Approach to Hierarchical Segmentation using Mean Shift. , 2007, , .		116
29	Learning to optimize halide with tree search and random programs. ACM Transactions on Graphics, 2019, 38, 1-12.	7.2	116
30	Light mixture estimation for spatially varying white balance. ACM Transactions on Graphics, 2008, 27, 1-7.	7.2	100
31	Taichi. ACM Transactions on Graphics, 2019, 38, 1-16.	7.2	90
32	Eulerian video magnification and analysis. Communications of the ACM, 2016, 60, 87-95.	4.5	79
33	Computational rephotography. ACM Transactions on Graphics, 2010, 29, 1-15.	7.2	72
34	Video magnification in presence of large motions. , 2015, , .		65
35	Visual Vibrometry: Estimating Material Properties from Small Motions in Video. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 732-745.	13.9	56
36	Motion microscopy for visualizing and quantifying small motions. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11639-11644.	7.1	55

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37	Differentiable programming for image processing and deep learning in halide. ACM Transactions on Graphics, 2018, 37, 1-13.	7.2	53
38	Programmable rendering of line drawing from 3D scenes. ACM Transactions on Graphics, 2010, 29, 1-20.	7.2	49
39	Efficient Reflectance and Visibility Approximations for Environment Map Rendering. Computer Graphics Forum, 2007, 26, 495-502.	3.0	33
40	Structural Modal Identification Through High Speed Camera Video: Motion Magnification. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 191-197.	0.5	31
41	Image-space modal bases for plausible manipulation of objects in video. ACM Transactions on Graphics, 2015, 34, 1-7.	7.2	23
42	Deviation magnification. ACM Transactions on Graphics, 2015, 34, 1-10.	7.2	15
43	Developments with Motion Magnification for Structural Modal Identification Through Camera Video. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 49-57.	0.5	12
44	When and how convolutional neural networks generalize to out-of-distribution category–viewpoint combinations. Nature Machine Intelligence, 2022, 4, 146-153.	16.0	7
45	Search-and-replace editing for personal photo collections. , 2010, , .		5
46	The aperture problem for refractive motion. , 2015, , .		4
47	Estimating a Small Signal in the Presence of Large Noise. , 2015, , .		1
48	Image-based querying of urban photos and videos. , 2009, , .		0
49	Towards cognitive saliency: narrowing the gap to human performance. Journal of Vision, 2017, 17, 542.	0.3	0