

# Fredo Durand

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/11957707/publications.pdf>

Version: 2024-02-01

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  | When and how convolutional neural networks generalize to out-of-distribution categoryâ€“viewpoint combinations. Nature Machine Intelligence, 2022, 4, 146-153.                    | 16.0 | 7         |
| 2  | Learning to optimize halide with tree search and random programs. ACM Transactions on Graphics, 2019, 38, 1-12.   | 7.2  | 116       |
| 3  | Taichi. ACM Transactions on Graphics, 2019, 38, 1-16.   | 7.2  | 90        |
| 4  | Differentiable programming for image processing and deep learning in halide. ACM Transactions on Graphics, 2018, 37, 1-13.  | 7.2  | 53        |
| 5  | 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        |
| 6  | Video Cameraâ€“Based Vibration Measurement for Civil Infrastructure Applications. Journal of Infrastructure Systems, 2017, 23, .  | 1.8  | 130       |
| 7  | 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        |
| 8  | Towards cognitive saliency: narrowing the gap to human performance. Journal of Vision, 2017, 17, 542.   | 0.3  | 0         |
| 9  | Eulerian video magnification and analysis. Communications of the ACM, 2016, 60, 87-95.  | 4.5  | 79        |
| 10 | Deep joint demosaicking and denoising. ACM Transactions on Graphics, 2016, 35, 1-12.  | 7.2  | 307       |
| 11 | Estimating a Small Signal in the Presence of Large Noise. , 2015, , .   |      | 1         |
| 12 | Modal identification of simple structures with high-speed video using motion magnification. Journal of Sound and Vibration, 2015, 345, 58-71.                                     | 3.9  | 381       |
| 13 | The aperture problem for refractive motion. , 2015, , .   |      | 4         |
| 14 | Image-space modal bases for plausible manipulation of objects in video. ACM Transactions on Graphics, 2015, 34, 1-7.  | 7.2  | 23        |
| 15 | 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        |
| 16 | Deviation magnification. ACM Transactions on Graphics, 2015, 34, 1-10.  | 7.2  | 15        |
| 17 | Video magnification in presence of large motions. , 2015, , .   |      | 65        |
| 18 | Light Field Reconstruction Using Sparsity in the Continuous Fourier Domain. ACM Transactions on Graphics, 2014, 34, 1-13.   | 7.2  | 179       |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | Fast Local Laplacian Filters. ACM Transactions on Graphics, 2014, 33, 1-14.   | 7.2  | 144       |
| 20 | Riesz pyramids for fast phase-based video magnification. , 2014, , .  |      | 124       |
| 21 | Structural Modal Identification Through High Speed Camera Video: Motion Magnification. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 191-197. | 0.5  | 31        |
| 22 | The visual microphone. ACM Transactions on Graphics, 2014, 33, 1-10.  | 7.2  | 251       |
| 23 | Phase-based video motion processing. ACM Transactions on Graphics, 2013, 32, 1-10.  | 7.2  | 499       |
| 24 | Halide. ACM SIGPLAN Notices, 2013, 48, 519-530.   | 0.2  | 342       |
| 25 | Decoupling algorithms from schedules for easy optimization of image processing pipelines. ACM Transactions on Graphics, 2012, 31, 1-12.                                   | 7.2  | 192       |
| 26 | Eulerian video magnification for revealing subtle changes in the world. ACM Transactions on Graphics, 2012, 31, 1-8.  | 7.2  | 843       |
| 27 | Unstructured Light Fields. Computer Graphics Forum, 2012, 31, 305-314.  | 3.0  | 163       |
| 28 | Computational rephotography. ACM Transactions on Graphics, 2010, 29, 1-15.  | 7.2  | 72        |
| 29 | Noise-optimal capture for high dynamic range photography. , 2010, , .   |      | 152       |
| 30 | Programmable rendering of line drawing from 3D scenes. ACM Transactions on Graphics, 2010, 29, 1-20.  | 7.2  | 49        |
| 31 | Search-and-replace editing for personal photo collections. , 2010, , .  |      | 5         |
| 32 | A Fast Approximation of the Bilateral Filter Using a Signal Processing Approach. International Journal of Computer Vision, 2009, 81, 24-52.                               | 15.6 | 500       |
| 33 | Learning to predict where humans look. , 2009, , .  |      | 1,368     |
| 34 | Image-based querying of urban photos and videos. , 2009, , .  |      | 0         |
| 35 | Light mixture estimation for spatially varying white balance. ACM Transactions on Graphics, 2008, 27, 1-7.  | 7.2  | 100       |
| 36 | Bilateral Filtering: Theory and Applications. Foundations and Trends in Computer Graphics and Vision, 2008, 4, 1-75.  | 4.5  | 341       |

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|----|--|-----|-----------|
| 37 | Motion-invariant photography. ACM Transactions on Graphics, 2008, 27, 1-9.   | 7.2 | 126       |
| 38 | Apparent ridges for line drawing. ACM Transactions on Graphics, 2007, 26, 19.  | 7.2 | 187       |
| 39 | Real-time edge-aware image processing with the bilateral grid. ACM Transactions on Graphics, 2007, 26, 103.                    | 7.2 | 338       |
| 40 | A Topological Approach to Hierarchical Segmentation using Mean Shift. , 2007, , .  |     | 116       |
| 41 | Image and depth from a conventional camera with a coded aperture. ACM Transactions on Graphics, 2007, 26, 70.                  | 7.2 | 861       |
| 42 | Real-time edge-aware image processing with the bilateral grid. , 2007, , .   |     | 159       |
| 43 | Efficient Reflectance and Visibility Approximations for Environment Map Rendering. Computer Graphics Forum, 2007, 26, 495-502. | 3.0 | 33        |
| 44 | Defocus Magnification. Computer Graphics Forum, 2007, 26, 571-579.   | 3.0 | 169       |
| 45 | Two-scale tone management for photographic look. ACM Transactions on Graphics, 2006, 25, 637-645.                              | 7.2 | 268       |
| 46 | Motion magnification. ACM Transactions on Graphics, 2005, 24, 519-526.   | 7.2 | 215       |
| 47 | Flash photography enhancement via intrinsic relighting. ACM Transactions on Graphics, 2004, 23, 673-678.                       | 7.2 | 479       |
| 48 | Non-iterative, feature-preserving mesh smoothing. ACM Transactions on Graphics, 2003, 22, 943-949.                             | 7.2 | 297       |
| 49 | Fast bilateral filtering for the display of high-dynamic-range images. ACM Transactions on Graphics, 2002, 21, 257-266.        | 7.2 | 1,023     |