

# Guy Gilboa

## List of Publications by Year in descending order

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46  
papers

4,045  
citations

516561

16  
h-index

315616

38  
g-index

46  
all docs

46  
docs citations

46  
times ranked

2563  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlocal Operators with Applications to Image Processing. Multiscale Modeling and Simulation, 2009, 7, 1005-1028.	0.6	1,045
2	A Fast Spectral Method for Active 3D Shape Reconstruction. Journal of Mathematical Imaging and Vision, 2004, 20, 73-87.	0.8	591
3	Structure-Texture Image Decomposition Modeling, Algorithms, and Parameter Selection. International Journal of Computer Vision, 2006, 67, 111-136.	10.9	517
4	Image enhancement and denoising by complex diffusion processes. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2004, 26, 1020-1036.	9.7	390
5	Nonlocal Linear Image Regularization and Supervised Segmentation. Multiscale Modeling and Simulation, 2007, 6, 595-630.	0.6	366
6	Forward-and-backward diffusion processes for adaptive image enhancement and denoising. IEEE Transactions on Image Processing, 2002, 11, 689-703.	6.0	290
7	Variational denoising of partly textured images by spatially varying constraints. IEEE Transactions on Image Processing, 2006, 15, 2281-2289.	6.0	148
8	Nonlinear inverse scale space methods. Communications in Mathematical Sciences, 2006, 4, 179-212.	0.5	127
9	Estimation of optimal PDE-based denoising in the SNR sense. IEEE Transactions on Image Processing, 2006, 15, 2269-2280.	6.0	88
10	A Total Variation Spectral Framework for Scale and Texture Analysis. SIAM Journal on Imaging Sciences, 2014, 7, 1937-1961.	1.3	79
11	Spectral Decompositions Using One-Homogeneous Functionals. SIAM Journal on Imaging Sciences, 2016, 9, 1374-1408.	1.3	65
12	Constrained and SNR-Based Solutions for TV-Hilbert Space Image Denoising. Journal of Mathematical Imaging and Vision, 2006, 26, 217-237.	0.8	59
13	Image Sharpening by Flows Based on Triple Well Potentials. Journal of Mathematical Imaging and Vision, 2004, 20, 121-131.	0.8	38
14	Nonlinear Spectral Analysis via One-Homogeneous Functionals: Overview and Future Prospects. Journal of Mathematical Imaging and Vision, 2016, 56, 300-319.	0.8	27
15	Spectral Representations of One-Homogeneous Functionals. Lecture Notes in Computer Science, 2015, , 16-27.	1.0	21
16	Theoretical Foundations for Discrete Forward-and-Backward Diffusion Filtering. Lecture Notes in Computer Science, 2009, , 527-538.	1.0	16
17	Rayleigh quotient minimization for absolutely one-homogeneous functionals. Inverse Problems, 2019, 35, 064003.	1.0	13
18	Flows Generating Nonlinear Eigenfunctions. Journal of Scientific Computing, 2018, 75, 859-888.	1.1	12

#	ARTICLE	IF	CITATIONS
19	Learning Nonlinear Spectral Filters for Color Image Reconstruction. , 2015, , .		11
20	Separation Surfaces in the Spectral TV Domain for Texture Decomposition. IEEE Transactions on Image Processing, 2016, 25, 1-1.	6.0	11
21	Nonlinear Spectral Image Fusion. Lecture Notes in Computer Science, 2017, , 41-53.	1.0	11
22	Optoacoustic model-based inversion using anisotropic adaptive total-variation regularization. Photoacoustics, 2019, 16, 100142.	4.4	10
23	Introducing the p-Laplacian spectra. Signal Processing, 2020, 167, 107281.	2.1	9
24	Adaptive LiDAR Sampling and Depth Completion Using Ensemble Variance. IEEE Transactions on Image Processing, 2021, 30, 8900-8912.	6.0	9
25	Mine-Like Objects detection in Side-Scan Sonar images using a shadows-highlights geometrical features space. , 2016, , .		8
26	A Discrete Theory and Efficient Algorithms for Forward-and-Backward Diffusion Filtering. Journal of Mathematical Imaging and Vision, 2018, 60, 1399-1426.	0.8	8
27	Energy dissipating flows for solving nonlinear eigenpair problems. Journal of Computational Physics, 2018, 375, 1138-1158.	1.9	8
28	Real and Complex PDEs-Based Schemes for Image Sharpening and Enhancement. Advances in Imaging and Electron Physics, 2005, 136, 1-109.	0.1	7
29	Theoretical Analysis of Flows Estimating Eigenfunctions of One-Homogeneous Functionals. SIAM Journal on Imaging Sciences, 2018, 11, 1416-1440.	1.3	7
30	Fundamentals of Non-Local Total Variation Spectral Theory. Lecture Notes in Computer Science, 2015, , 66-77.	1.0	6
31	Robust Recovery of Heavily Degraded Depth Measurements. , 2016, , .		6
32	Super-Pixel Sampler: a Data-driven Approach for Depth Sampling and Reconstruction. , 2020, , .		6
33	A Depth Restoration Occlusionless Temporal Dataset. , 2016, , .		5
34	Semi-Inner-Products for Convex Functionals and Their Use in Image Decomposition. Journal of Mathematical Imaging and Vision, 2017, 57, 26-42.	0.8	5
35	Nonlinear Power Method for Computing Eigenvectors of Proximal Operators and Neural Networks. SIAM Journal on Imaging Sciences, 2021, 14, 1114-1148.	1.3	5
36	Multiscale Texture Orientation Analysis Using Spectral Total-Variation Decomposition. Lecture Notes in Computer Science, 2015, , 486-497.	1.0	4

#	ARTICLE	IF	CITATIONS
37	Learning parametrised regularisation functions via quotient minimisation. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 933-936.	0.2	3
38	Modes of Homogeneous Gradient Flows. SIAM Journal on Imaging Sciences, 2021, 14, 913-945.	1.3	3
39	Learning Filter Functions in Regularisers by Minimising Quotients. Lecture Notes in Computer Science, 2017, , 511-523.	1.0	3
40	Total-Variation Mode Decomposition. Lecture Notes in Computer Science, 2021, , 52-64.	1.0	2
41	Stable Explicit p-Laplacian Flows Based on Nonlinear Eigenvalue Analysis. Lecture Notes in Computer Science, 2019, , 315-327.	1.0	2
42	Frame rate reduction of depth cameras by RGB-based depth prediction. , 2016, , .		1
43	Iterative Methods for Computing Eigenvectors of Nonlinear Operators. , 2021, , 1-28.		1
44	Revealing stable and unstable modes of denoisers through nonlinear eigenvalue analysis. Journal of Visual Communication and Image Representation, 2021, 75, 103041.	1.7	1
45	Adaptive Anisotropic Total Variation: Analysis and Experimental Findings of Nonlinear Spectral Properties. Journal of Mathematical Imaging and Vision, 2022, 64, 916-938.	0.8	1
46	Numerical Methods for Finding Eigenfunctions. Advances in Computer Vision and Pattern Recognition, 2018, , 107-122.	0.9	0