Guy Gilboa

List of Publications by Year in Descending Order

45 papers	3,234 citations	15 h-index	46 g-index
46 ext. papers	3,655 ext. citations	2.9 avg, IF	5.55 L-index

#	Paper	IF	Citations
45	Adaptive LiDAR Sampling and Depth Completion Using Ensemble Variance. *IEEE Transactions on Image Processing*, **2021**, 30, 8900-8912	8.7	3
44	Nonlinear Power Method for Computing Eigenvectors of Proximal Operators and Neural Networks. *SIAM Journal on Imaging Sciences*, **2021**, 14, 1114-1148	1.9	2
43	Total-Variation Mode Decomposition. *Lecture Notes in Computer Science*, **2021**, 52-64	0.9	1
42	Iterative Methods for Computing Eigenvectors of Nonlinear Operators **2021**, 1-28		
41	Revealing stable and unstable modes of denoisers through nonlinear eigenvalue analysis. *Journal of Visual Communication and Image Representation*, **2021**, 75, 103041	2.7	1
40	Modes of Homogeneous Gradient Flows. *SIAM Journal on Imaging Sciences*, **2021**, 14, 913-945	1.9	2
39	Introducing the p-Laplacian spectra. *Signal Processing*, **2020**, 167, 107281	4.4	5
38	Super-Pixel Sampler: a Data-driven Approach for Depth Sampling and Reconstruction **2020**,		2
37	Rayleigh quotient minimization for absolutely one-homogeneous functionals. *Inverse Problems*, **2019**, 35, 064003	2.3	10
36	Stable Explicit p-Laplacian Flows Based on Nonlinear Eigenvalue Analysis. *Lecture Notes in Computer Science*, **2019**, 315-327	0.9	2
35	Optoacoustic model-based inversion using anisotropic adaptive total-variation regularization. *Photoacoustics*, **2019**, 16, 100142	9	4
34	Flows Generating Nonlinear Eigenfunctions. *Journal of Scientific Computing*, **2018**, 75, 859-888	2.3	8
33	Numerical Methods for Finding Eigenfunctions. *Advances in Computer Vision and Pattern Recognition*, **2018**, 107-122	1.1	
32	A Discrete Theory and Efficient Algorithms for Forward-and-Backward Diffusion Filtering. *Journal of Mathematical Imaging and Vision*, **2018**, 60, 1399-1426	1.6	4
31	Energy dissipating flows for solving nonlinear eigenpair problems. *Journal of Computational Physics*, **2018**, 375, 1138-1158	4.1	7
30	Theoretical Analysis of Flows Estimating Eigenfunctions of One-Homogeneous Functionals. *SIAM Journal on Imaging Sciences*, **2018**, 11, 1416-1440	1.9	6
29	Semi-Inner-Products for Convex Functionals and Their Use in Image Decomposition. *Journal of Mathematical Imaging and Vision*, **2017**, 57, 26-42	1.6	2

28	Nonlinear Spectral Image Fusion. *Lecture Notes in Computer Science*, **2017**, 41-53	0.9	11
27	Learning Filter Functions in Regularisers by Minimising Quotients. *Lecture Notes in Computer Science*, **2017**, 511-523	0.9	3
26	Separation Surfaces in the Spectral TV Domain for Texture Decomposition. *IEEE Transactions on Image Processing*, **2016**, 25, 4260-4270	8.7	11
25	Learning parametrised regularisation functions via quotient minimisation. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 933-936	0.2	3
24	Nonlinear Spectral Analysis via One-Homogeneous Functionals: Overview and Future Prospects. *Journal of Mathematical Imaging and Vision*, **2016**, 56, 300-319	1.6	18
23	Robust Recovery of Heavily Degraded Depth Measurements **2016**,		4
22	A Depth Restoration Occlusionless Temporal Dataset **2016**,		4
21	Frame rate reduction of depth cameras by RGB-based depth prediction **2016**,		1
20	Mine-Like Objects detection in Side-Scan Sonar images using a shadows-highlights geometrical features space **2016**,		4
19	Spectral Decompositions Using One-Homogeneous Functionals. *SIAM Journal on Imaging Sciences*, **2016**, 9, 1374-1408	1.9	53
18	Fundamentals of Non-Local Total Variation Spectral Theory. *Lecture Notes in Computer Science*, **2015**, 66-77	0.9	4
17	Learning Nonlinear Spectral Filters for Color Image Reconstruction **2015**,		8
16	Spectral Representations of One-Homogeneous Functionals. *Lecture Notes in Computer Science*, **2015**, 16-27	0.9	18
15	Multiscale Texture Orientation Analysis Using Spectral Total-Variation Decomposition. *Lecture Notes in Computer Science*, **2015**, 486-497	0.9	4
14	A Total Variation Spectral Framework for Scale and Texture Analysis. *SIAM Journal on Imaging Sciences*, **2014**, 7, 1937-1961	1.9	63
13	Nonlocal Operators with Applications to Image Processing. *Multiscale Modeling and Simulation*, **2009**, 7, 1005-1028	1.8	815
12	Theoretical Foundations for Discrete Forward-and-Backward Diffusion Filtering. *Lecture Notes in Computer Science*, **2009**, 527-538	0.9	10
11	Nonlocal Linear Image Regularization and Supervised Segmentation. *Multiscale Modeling and Simulation*, **2007**, 6, 595-630	1.8	288

10	Variational denoising of partly textured images by spatially varying constraints. *IEEE Transactions on Image Processing*, **2006**, 15, 2281-9	8.7	116
9	Estimation of optimal PDE-based denoising in the SNR sense. *IEEE Transactions on Image Processing*, **2006**, 15, 2269-80	8.7	68
8	Structure-Texture Image Decomposition Modeling, Algorithms, and Parameter Selection. *International Journal of Computer Vision*, **2006**, 67, 111-136	10.6	407
7	Constrained and SNR-Based Solutions for TV-Hilbert Space Image Denoising. *Journal of Mathematical Imaging and Vision*, **2006**, 26, 217-237	1.6	52
6	Nonlinear inverse scale space methods. *Communications in Mathematical Sciences*, **2006**, 4, 179-212	1	95
5	Real and Complex PDE-Based Schemes for Image Sharpening and Enhancement. *Advances in Imaging and Electron Physics*, **2005**, 136, 1-109	0.2	4
4	Image Sharpening by Flows Based on Triple Well Potentials. *Journal of Mathematical Imaging and Vision*, **2004**, 20, 73-87	1.6	552
3	Practical, Unified, Motion and Missing Data Treatment in Degraded Video. *Journal of Mathematical Imaging and Vision*, **2004**, 20, 121-131	1.6	34
2	Image enhancement and denoising by complex diffusion processes. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2004**, 26, 1020-36	13.3	309
1	Forward-and-backward diffusion processes for adaptive image enhancement and denoising. *IEEE Transactions on Image Processing*, **2002**, 11, 689-703	8.7	216