

Nir Sochen

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/11099527/nir-sochen-publications-by-year.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

89
papers

4,486
citations

24
h-index

66
g-index

94
ext. papers

5,200
ext. citations

3.6
avg, IF

5.92
L-index

#	Paper	IF	Citations
89	Improving the predictive potential of diffusion MRI in schizophrenia using normative models-Towards subject-level classification. <i>Human Brain Mapping</i> , 2021 , 42, 4658-4670	5.9	3
88	Computational end-to-end and super-resolution methods to improve thermal infrared remote sensing for agriculture. <i>Precision Agriculture</i> , 2021 , 22, 452-474	5.6	3
87	REPIMPACT - a prospective longitudinal multisite study on the effects of repetitive head impacts in youth soccer. <i>Brain Imaging and Behavior</i> , 2021 , 1	4.1	0
86	Localization phase transition in stochastic dynamics on networks with hub topology. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020 , 554, 124636	3.3	
85	Rapid super resolution for infrared imagery. <i>Optics Express</i> , 2020 , 28, 27196-27209	3.3	1
84	Uncertainty principles and optimally sparse wavelet transforms. <i>Applied and Computational Harmonic Analysis</i> , 2020 , 48, 811-867	3.1	2
83	Single- and double-Diffusion encoding MRI for studying ex vivo apparent axon diameter distribution in spinal cord white matter. <i>NMR in Biomedicine</i> , 2019 , 32, e4170	4.4	8
82	Joint estimation of unknown radiometric data, gain, and offset from thermal images. <i>Applied Optics</i> , 2018 , 57, 10390-10401	1.7	5
81	Spectral Analysis of a Non-Equilibrium Stochastic Dynamics on a General Network. <i>Scientific Reports</i> , 2018 , 8, 14333	4.9	3
80	Microscopic interpretation and generalization of the Bloch-Torrey equation for diffusion magnetic resonance. <i>Journal of Magnetic Resonance</i> , 2017 , 277, 95-103	3	6
79	The fiber-density-coreset for redundancy reduction in huge fiber-sets. <i>NeuroImage</i> , 2017 , 146, 246-256	7.9	2
78	Radiometric imaging by double exposure and gain calibration. <i>Applied Optics</i> , 2017 , 56, 5639-5647	1.7	6
77	Pore sizes and directionality in microcapillaries from angular double-pulsed-field-gradient NMR. <i>Microporous and Mesoporous Materials</i> , 2016 , 225, 105-115	5.3	2
76	Mumford and Shah Model and Its Applications to Image Segmentation and Image Restoration 2015 , 1539-1597		
75	A spectral framework for NMR signal with restricted diffusion. <i>Concepts in Magnetic Resonance Part A: Bridging Education and Research</i> , 2015 , 44, 16-53	0.6	6
74	Microstructural information from angular double-pulsed-field-gradient NMR: From model systems to nerves. <i>Magnetic Resonance in Medicine</i> , 2015 , 74, 25-32	4.4	11
73	Equi-affine Invariant Geometry for Shape Analysis. <i>Journal of Mathematical Imaging and Vision</i> , 2014 , 50, 144-163	1.6	13

72	Progress in the restoration of image sequences degraded by atmospheric turbulence. <i>Pattern Recognition Letters</i> , 2014 , 48, 8-14	4.7	16
71	Mumford and Shah Model and Its Applications to Image Segmentation and Image Restoration 2014 , 1-52		4
70	A Class of Generalized Laplacians on Vector Bundles Devoted to Multi-Channel Image Processing. <i>Journal of Mathematical Imaging and Vision</i> , 2014 , 48, 517-543	1.6	8
69	Learning Big (Image) Data via Coresets for Dictionaries. <i>Journal of Mathematical Imaging and Vision</i> , 2013 , 46, 276-291	1.6	8
68	Measuring small compartments with relatively weak gradients by angular double-pulsed-field-gradient NMR. <i>Magnetic Resonance Imaging</i> , 2013 , 31, 401-7	3.3	12
67	Modeling of the diffusion MR signal in calibrated model systems and nerves. <i>NMR in Biomedicine</i> , 2013 , 26, 1787-95	4.4	12
66	Metric Selection and Diffusion Tensor Swelling. <i>Mathematics and Visualization</i> , 2012 , 323-336	0.6	5
65	Equi-affine Invariant Geometries of Articulated Objects. <i>Lecture Notes in Computer Science</i> , 2012 , 177-190.9		
64	Mapping apparent eccentricity and residual ensemble anisotropy in the gray matter using angular double-pulsed-field-gradient MRI. <i>Magnetic Resonance in Medicine</i> , 2012 , 68, 794-806	4.4	39
63	From High Definition Image to Low Space Optimization. <i>Lecture Notes in Computer Science</i> , 2012 , 459-470.9		8
62	SPD Tensors Regularization via Iwasawa Decomposition. <i>Computational Imaging and Vision</i> , 2012 , 83-100		
61	The Beltrami-Mumford-Shah Functional. <i>Lecture Notes in Computer Science</i> , 2012 , 183-193	0.9	1
60	Square Integrable Group Representations and the Uncertainty Principle. <i>Journal of Fourier Analysis and Applications</i> , 2011 , 17, 916-931	1.1	3
59	Affine-invariant geodesic geometry of deformable 3D shapes. <i>Computers and Graphics</i> , 2011 , 35, 692-697.8		20
58	Affine-invariant diffusion geometry for the analysis of deformable 3D shapes 2011 ,		15
57	Mumford and Shah Model and its Applications to Image Segmentation and Image Restoration 2011 , 1095-1157		16
56	Anisotropic α -Kernels and Associated Flows. <i>SIAM Journal on Imaging Sciences</i> , 2010 , 3, 904-925	1.9	1
55	The effect of metric selection on the analysis of diffusion tensor MRI data. <i>NeuroImage</i> , 2010 , 49, 2190-204		44

54	Stereo matching with Mumford-Shah regularization and occlusion handling. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2010 , 32, 2071-84	13.3	21
53	Do Uncertainty Minimizers Attain Minimal Uncertainty?. <i>Journal of Fourier Analysis and Applications</i> , 2010 , 16, 448-469	1.1	11
52	Shape from Shading 2009 , 2511		
51	Free water elimination and mapping from diffusion MRI. <i>Magnetic Resonance in Medicine</i> , 2009 , 62, 717-304	4.4	518
50	A Geometric Framework and a New Criterion in Optical Flow Modeling. <i>Journal of Mathematical Imaging and Vision</i> , 2009 , 33, 178-194	1.6	7
49	Regularizing Flows over Lie Groups. <i>Journal of Mathematical Imaging and Vision</i> , 2009 , 33, 195-208	1.6	11
48	Fast GL(n)-Invariant Framework for Tensors Regularization. <i>International Journal of Computer Vision</i> , 2009 , 85, 211-222	10.6	12
47	Coordinates-Based Diffusion Over the Space of Symmetric Positive-Definite Matrices. <i>Mathematics and Visualization</i> , 2009 , 325-340	0.6	1
46	Anisotropic Regularization for Inverse Problems with Application to the Wiener Filter with Gaussian and Impulse Noise. <i>Lecture Notes in Computer Science</i> , 2009 , 319-330	0.9	2
45	The Finite Harmonic Oscillator and Its Applications to Sequences, Communication, and Radar. <i>IEEE Transactions on Information Theory</i> , 2008 , 54, 4239-4253	2.8	21
44	Efficient anisotropic \mathbb{K} ernels decompositions and flows 2008 ,		1
43	The finite harmonic oscillator and its associated sequences. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 9869-73	11.5	8
42	Shape-Based Mutual Segmentation. <i>International Journal of Computer Vision</i> , 2008 , 79, 231-245	10.6	19
41	A Geometric Approach for Regularization of the Data Term in Stereo-Vision. <i>Journal of Mathematical Imaging and Vision</i> , 2008 , 31, 17-33	1.6	6
40	On Some Deterministic Dictionaries Supporting Sparsity. <i>Journal of Fourier Analysis and Applications</i> , 2008 , 14, 859-876	1.1	13
39	Variational multiple-tensor fitting of fiber-ambiguous diffusion-weighted magnetic resonance imaging voxels. <i>Magnetic Resonance Imaging</i> , 2008 , 26, 1133-44	3.3	36
38	Group Representation Design of Digital Signals and Sequences. <i>Lecture Notes in Computer Science</i> , 2008 , 153-166	0.9	1
37	Regularization of diffusion tensor MRI via local coordinates. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2007 , 7, 1011211-1011212	0.2	1

36	Prior-based Segmentation and Shape Registration in the Presence of Perspective Distortion. <i>International Journal of Computer Vision</i> , 2007 , 72, 309-328	10.6	31
35	Fast Invariant Riemannian DT-MRI Regularization 2007 ,		10
34	Can Born Approximate the Unborn? A New Validity Criterion for the Born Approximation in Microscopic Imaging 2007 ,		1
33	Variational Stereo Vision with Sharp Discontinuities and Occlusion Handling 2007 ,		14
32	Convergence of an Iterative Method for Variational Deconvolution and Impulsive Noise Removal. <i>Multiscale Modeling and Simulation</i> , 2007 , 6, 983-994	1.8	6
31	Deblurring of color images corrupted by impulsive noise. <i>IEEE Transactions on Image Processing</i> , 2007 , 16, 1101-11	8.7	81
30	A short- time beltrami kernel for smoothing images and manifolds. <i>IEEE Transactions on Image Processing</i> , 2007 , 16, 1628-36	8.7	54
29	Restoration of Images with Piecewise Space-Variant Blur 2007 , 533-544		20
28	Coordinate-Free Diffusion over Compact Lie-Groups 2007 , 580-591		6
27	Diffusion over tensor fields via Lie group PDE flows: Lagrangian action approach. <i>Contemporary Mathematics</i> , 2007 , 59-74	1.6	4
26	Variational denoising of partly textured images by spatially varying constraints. <i>IEEE Transactions on Image Processing</i> , 2006 , 15, 2281-9	8.7	116
25	Semi-blind image restoration via Mumford-Shah regularization. <i>IEEE Transactions on Image Processing</i> , 2006 , 15, 483-93	8.7	57
24	Image Inpainting via Fluid Equations 2006 ,		2
23	Estimation of optimal PDE-based denoising in the SNR sense. <i>IEEE Transactions on Image Processing</i> , 2006 , 15, 2269-80	8.7	68
22	A Multiphase Dynamic Labeling Model for Variational Recognition-driven Image Segmentation. <i>International Journal of Computer Vision</i> , 2006 , 66, 67-81	10.6	76
21	Image Deblurring in the Presence of Impulsive Noise. <i>International Journal of Computer Vision</i> , 2006 , 70, 279-298	10.6	95
20	Variational blind deconvolution of multi-channel images. <i>International Journal of Imaging Systems and Technology</i> , 2005 , 15, 56-63	2.5	8
19	Shape-from-Shading Under Perspective Projection. <i>International Journal of Computer Vision</i> , 2005 , 63, 21-43	10.6	66

18	Real and Complex PDE-Based Schemes for Image Sharpening and Enhancement. <i>Advances in Imaging and Electron Physics</i> , 2005 , 136, 1-109	0.2	4
17	Image Deblurring in the Presence of Salt-and-Pepper Noise. <i>Lecture Notes in Computer Science</i> , 2005 , 107-118	0.9	40
16	Geometric Filters, Diffusion Flows, and Kernels in Image Processing 2005 , 203-230		2
15	The Beltrami Flow over Triangulated Manifolds. <i>Lecture Notes in Computer Science</i> , 2004 , 135-144	0.9	8
14	Unlevel-Sets: Geometry and Prior-Based Segmentation. <i>Lecture Notes in Computer Science</i> , 2004 , 50-61	0.9	27
13	Image Sharpening by Flows Based on Triple Well Potentials. <i>Journal of Mathematical Imaging and Vision</i> , 2004 , 20, 73-87	1.6	552
12	Affine Invariant Flows in the Beltrami Framework. <i>Journal of Mathematical Imaging and Vision</i> , 2004 , 20, 89-97	1.6	1373
11	Practical, Unified, Motion and Missing Data Treatment in Degraded Video. <i>Journal of Mathematical Imaging and Vision</i> , 2004 , 20, 121-131	1.6	34
10	Landmark Matching via Large Deformation Diffeomorphisms on the Sphere. <i>Journal of Mathematical Imaging and Vision</i> , 2004 , 20, 133-146	1.6	6
9	Variational Pairing of Image Segmentation and Blind Restoration. <i>Lecture Notes in Computer Science</i> , 2004 , 166-177	0.9	25
8	Image enhancement and denoising by complex diffusion processes. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2004 , 26, 1020-36	13.3	309
7	Multiphase Dynamic Labeling for Variational Recognition-Driven Image Segmentation. <i>Lecture Notes in Computer Science</i> , 2004 , 74-86	0.9	13
6	Towards Recognition-Based Variational Segmentation Using Shape Priors and Dynamic Labeling. <i>Lecture Notes in Computer Science</i> , 2003 , 388-400	0.9	69
5	The Maximum Principle for Beltrami Color Flow. <i>Lecture Notes in Computer Science</i> , 2003 , 196-208	0.9	1
4	Efficient Beltrami Flow Using a Short Time Kernel. <i>Lecture Notes in Computer Science</i> , 2003 , 511-522	0.9	8
3	Orientation Diffusion or How to Comb a Porcupine. <i>Journal of Visual Communication and Image Representation</i> , 2002 , 13, 238-248	2.7	65
2	Forward-and-backward diffusion processes for adaptive image enhancement and denoising. <i>IEEE Transactions on Image Processing</i> , 2002 , 11, 689-703	8.7	216
1	From high energy physics to low level vision. <i>Lecture Notes in Computer Science</i> , 1997 , 236-247	0.9	43

