Irad Yavneh

List of Publications by Year
in descending order

57 papers	1,287 citations	394421 19 h-index	361022 35 g-index
57 all docs	57 docs citations	57 times ranked	953 citing authors

#	Article	IF	Citations
1	Baroclinic Instability and Loss of Balance. Journal of Physical Oceanography, 2005, 35, 1505-1517.	1.7	176
2	A Plurality of Sparse Representations Is Better Than the Sparsest One Alone. IEEE Transactions on Information Theory, 2009, 55, 4701-4714.	2.4	139
3	On Red-Black SOR Smoothing in Multigrid. SIAM Journal of Scientific Computing, 1996, 17, 180-192.	2.8	72
4	Instability and Equilibration of Centrifugally Stable Stratified Taylor-Couette Flow. Physical Review Letters, 2001, 86, 5270-5273.	7.8	70
5	Closed-Form MMSE Estimation for Signal Denoising Under Sparse Representation Modeling Over a Unitary Dictionary. IEEE Transactions on Signal Processing, 2010, 58, 3471-3484.	5.3	66
6	Non-axisymmetric instability of centrifugally stable stratified Taylor–Couette flow. Journal of Fluid Mechanics, 2001, 448, 1-21.	3.4	64
7	The vortices of homogeneous geostrophic turbulence. Journal of Fluid Mechanics, 1999, 401, 1-26.	3.4	56
8	Weakly nonlinear electrophoresis of a highly charged colloidal particle. Physics of Fluids, 2013, 25, .	4.0	55
9	Coarse-Grid Correction for Nonelliptic and Singular Perturbation Problems. SIAM Journal of Scientific Computing, 1998, 19, 1682-1699.	2.8	43
10	The breakdown of large-scale flows in rotating, stratified fluids. Physics of Fluids, 1998, 10, 3178-3184.	4.0	37
11	An Algebraic Multigrid Approach for Image Analysis. SIAM Journal of Scientific Computing, 2003, 24, 1218-1231.	2.8	37
12	Multigrid Smoothing Factors for Red-Black Gauss–Seidel Relaxation Applied to a Class of Elliptic Operators. SIAM Journal on Numerical Analysis, 1995, 32, 1126-1138.	2.3	35
13	Eddies and vortices in ocean basin dynamics. Geophysical Research Letters, 2001, 28, 3183-3186.	4.0	35
14	Fluctuation growth and instability associated with a singularity of the balance equations. Physics of Fluids, 1998, 10, 2587-2596.	4.0	34
15	Ageostrophic, anticyclonic instability of a geostrophic, barotropic boundary current. Physics of Fluids, 2004, 16, 3720-3725.	4.0	31
16	Fast Multigrid Solution of the Advection Problem with Closed Characteristics. SIAM Journal of Scientific Computing, 1998, 19, 111-125.	2.8	27
17	On MMSE and MAP Denoising Under Sparse Representation Modeling Over a Unitary Dictionary. IEEE Transactions on Signal Processing, 2011, 59, 3526-3535.	5.3	26
18	Multigrid Solution of Rotating, Stably Stratified Flows:. Journal of Computational Physics, 1997, 136, 245-262.	3.8	23

#	Article	IF	Citations
19	Clutter Mitigation in Echocardiography Using Sparse Signal Separation. International Journal of Biomedical Imaging, 2015, 2015, 1-18.	3.9	21
20	A Multilevel Nonlinear Method. SIAM Journal of Scientific Computing, 2006, 28, 24-46.	2.8	19
21	Non-Galerkin Multigrid Based on Sparsified Smoothed Aggregation. SIAM Journal of Scientific Computing, 2015, 37, A30-A54.	2.8	19
22	Robust Multigrid Solution of the Shallow-Water Balance Equations. Journal of Computational Physics, 1995, 119, 1-25.	3.8	17
23	A Method for Devising Efficient Multigrid Smoothers for Complicated PDE Systems. SIAM Journal of Scientific Computing, 1993, 14, 1437-1463.	2.8	16
24	Square and stretch multigrid for stochastic matrix eigenproblems. Numerical Linear Algebra With Applications, 2010, 17, 229-251.	1.6	16
25	Breakdown of the slow manifold in the Shallow-Water equations. Geophysical and Astrophysical Fluid Dynamics, 1994, 75, 131-161.	1.2	15
26	On-the-Fly Adaptive Smoothed Aggregation Multigrid for Markov Chains. SIAM Journal of Scientific Computing, 2011, 33, 2927-2949.	2.8	12
27	Fast multilevel methods for Markov chains. Numerical Linear Algebra With Applications, 2011, 18, 961-980.	1.6	11
28	On MAP and MMSE estimators for the co-sparse analysis model. , 2014, 28, 57-74.		11
29	A Multilevel Iterated-Shrinkage Approach to l_{1} Penalized Least-Squares Minimization. IEEE Transactions on Signal Processing, 2012, 60, 6319-6329.	5.3	10
30	Nonsymmetric Black Box multigrid with coarsening by three. Numerical Linear Algebra With Applications, 2012, 19, 194-209.	1.6	10
31	Multigrid solution of stably stratified flows: The quasigeostrophic equations. Journal of Scientific Computing, 1996, 11, 47-69.	2.3	9
32	Towards optimal distance functions for stochastic substitution models. Journal of Theoretical Biology, 2009, 260, 294-307.	1.7	9
33	Multigrid smoothing for symmetric nine-point stencils. Applied Mathematics and Computation, 1998, 92, 229-246.	2.2	8
34	Adaptive Multiscale Redistribution for Vector Quantization. SIAM Journal of Scientific Computing, 2006, 27, 1573-1593.	2.8	7
35	Collocation Coarse Approximation in Multigrid. SIAM Journal of Scientific Computing, 2009, 31, 3643-3660.	2.8	7
36	A Multilevel Framework for Sparse Optimization with Application to Inverse Covariance Estimation and Logistic Regression. SIAM Journal of Scientific Computing, 2016, 38, S566-S592.	2.8	6

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37	Review of Methods Inspired by Algebraic-Multigrid for Data and Image Analysis Applications. Numerical Mathematics, 2015, 8, 283-312.	1.3	5
38	A multigrid approach to two-dimensional phase unwrapping. Numerical Linear Algebra With Applications, 2004, 11, 241-259.	1.6	4
39	Fusion of ultrasound harmonic imaging with clutter removal using sparse signal separation. , 2015, , .		4
40	Multigrid Solution of an Elliptic Boundary-Value Problem with Integral Constraints. SIAM Journal of Scientific Computing, 1999, 21, 1357-1369.	2.8	3
41	A multilevel graph algorithm for two dimensional phase unwrapping. Computing and Visualization in Science, 2008, 11, 89-100.	1.2	3
42	Closed-form mmse estimator for denoising signals under sparse representation modelling. , 2008, , .		3
43	Adaptive Distance Measures for Resolving K2P Quartets: Metric Separation versus Stochastic Noise. Journal of Computational Biology, 2010, 17, 1509-1518.	1.6	3
44	Sparse signal separation with an off-line learned dictionary for clutter reduction in echocardiography. , 2014, , .		3
45	An elliptic problem with integral constraints with application to large-scale geophysical flows. Annals of Software Engineering, 1998, 2, 337-346.	0.5	2
46	Automated Transformations for PDE Systems with Application to Multigrid Solvers. SIAM Journal of Scientific Computing, 2003, 24, 886-904.	2.8	2
47	Stochastic errors vs. modeling errors in distance based phylogenetic reconstructions. Algorithms for Molecular Biology, 2012, 7, 22.	1.2	2
48	Sparsity-based single-shot sub-wavelength coherent diffractive imaging. , 2012, , .		1
49	A multilevel iterated-shrinkage approach to l-1 penalized least-squares minimization. , 2012, , .		1
50	A Factor-Two Approximation Algorithm for Two-Dimensional Phase Unwrapping. Journal of Graph Algorithms and Applications, 2006, 10, 123-139.	0.4	1
51	Stochastic Errors vs. Modeling Errors in Distance Based Phylogenetic Reconstructions. Lecture Notes in Computer Science, 2011, , 49-60.	1.3	1
52	Speed limit quasi splines and their application to interpolation with bounded first order derivative. Numerical Linear Algebra With Applications, 2015, 22, 433-452.	1.6	0
53	Comparing evolutionary distances via adaptive distance functions. Journal of Theoretical Biology, 2018, 440, 88-99.	1.7	0
54	On adapting Nesterov's scheme to accelerate iterative methods for linear problems. Numerical Linear Algebra With Applications, 0, , e2417.	1.6	0

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55	Numerical and Analytical Investigation of the Large Scale Flow due to an â€œEnergy Towerâ€, 2001, , 785-786.		0
56	Adjustable Coins. Recreational Mathematics Magazine, 2021, 8, 27-39.	0.2	0
57	On the Recursive Structure of Multigrid Cycles. SIAM Journal of Scientific Computing, 0, , S103-S126.	2.8	0