

# Giuseppe Rodriguez

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

1,387  
citations

361413

20  
h-index

361022

35  
g-index

72  
all docs

72  
docs citations

72  
times ranked

785  
citing authors

#	ARTICLE	IF	CITATIONS
1	Old and new parameter choice rules for discrete ill-posed problems. Numerical Algorithms, 2013, 63, 65-87.	1.9	149
2	An adaptive pruning algorithm for the discrete L-curve criterion. Journal of Computational and Applied Mathematics, 2007, 198, 483-492.	2.0	141
3	Multi-parameter regularization techniques for ill-conditioned linear systems. Numerische Mathematik, 2003, 94, 203-228.	1.9	76
4	Two-Dimensional TSVD to Enhance the Spatial Resolution of Radiometer Data. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 2450-2458.	6.3	63
5	Error estimates for linear systems with applications to regularization. Numerical Algorithms, 2008, 49, 85-104.	1.9	57
6	Spectral factorization of Laurent polynomials. Advances in Computational Mathematics, 1997, 7, 429-454.	1.6	55
7	Error estimates for the regularization of least squares problems. Numerical Algorithms, 2009, 51, 61-76.	1.9	51
8	Extrapolation techniques for ill-conditioned linear systems. Numerische Mathematik, 1998, 81, 1-29.	1.9	40
9	GCV for Tikhonov regularization by partial SVD. BIT Numerical Mathematics, 2017, 57, 1019-1039.	2.0	40
10	Block Gauss and Anti-Gauss Quadrature with Application to Networks. SIAM Journal on Matrix Analysis and Applications, 2013, 34, 1655-1684.	1.4	38
11	GCV for Tikhonov regularization via global Golub-Kahan decomposition. Numerical Linear Algebra With Applications, 2016, 23, 467-484.	1.6	37
12	Regularization parameter determination for discrete ill-posed problems. Journal of Computational and Applied Mathematics, 2015, 273, 132-149.	2.0	34
13	Parameter determination for Tikhonov regularization problems in general form. Journal of Computational and Applied Mathematics, 2018, 343, 12-25.	2.0	32
14	Regularized solution of a nonlinear problem in electromagnetic sounding. Inverse Problems, 2014, 30, 125014.	2.0	29
15	Energy and exergy analysis of a geothermal heat pump air conditioning system. Applied Thermal Engineering, 2015, 86, 333-347.	6.0	29
16	Error estimates for large-scale ill-posed problems. Numerical Algorithms, 2009, 51, 341-361.	1.9	28
17	Fast and accurate computation of orthogonal moments for texture analysis. Pattern Recognition, 2018, 83, 498-510.	8.1	28
18	Network Analysis via Partial Spectral Factorization and Gauss Quadrature. SIAM Journal of Scientific Computing, 2013, 35, A2046-A2068.	2.8	27

#	ARTICLE	IF	CITATIONS
19	Calibrating electromagnetic induction conductivities with time-domain reflectometry measurements. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 1509-1523.	4.9	27
20	Geophysical investigations unravel the vestiges of ancient meandering channels and their dynamics in tidal landscapes. <i>Scientific Reports</i> , 2018, 8, 1708.	3.3	23
21	Bounding matrix functionals via partial global block Lanczos decomposition. <i>Applied Numerical Mathematics</i> , 2015, 94, 127-139.	2.1	21
22	Orthogonal splines based on B-splines " with applications to least squares, smoothing and regularisation problems. <i>Numerical Algorithms</i> , 1993, 5, 25-40.	1.9	18
23	A fast solver for linear systems with displacement structure. <i>Numerical Algorithms</i> , 2010, 55, 529-556.	1.9	16
24	Numerical solution of the nonlinear Schrödinger equation, starting from the scattering data. <i>Calcolo</i> , 2011, 48, 75-88.	1.1	16
25	Inversion of Multiconfiguration Complex EMI Data with Minimum Gradient Support Regularization: A Case Study. <i>Mathematical Geosciences</i> , 2020, 52, 945-970.	2.4	15
26	A New Technique for Ill-Conditioned Linear Systems. <i>Numerical Algorithms</i> , 2003, 33, 433-442.	1.9	14
27	Fast Solution of Toeplitz- and Cauchy- Like Least-Squares Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2006, 28, 724-748.	1.4	14
28	smt: a Matlab toolbox for structured matrices. <i>Numerical Algorithms</i> , 2012, 59, 639-659.	1.9	13
29	New block quadrature rules for the approximation of matrix functions. <i>Linear Algebra and Its Applications</i> , 2016, 502, 299-326.	0.9	13
30	FDEMtools: a MATLAB package for FDEM data inversion. <i>Numerical Algorithms</i> , 2020, 84, 1313-1327.	1.9	13
31	On the Cholesky factorization of the Gram matrix of locally supported functions. <i>BIT Numerical Mathematics</i> , 1995, 35, 233-257.	2.0	12
32	LDU factorization results for bi-infinite and semi-infinite scalar and block Toeplitz matrices. <i>Calcolo</i> , 1996, 33, 307-335.	1.1	12
33	On the Cholesky Factorization of the Gram Matrix of Multivariate Functions. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2000, 22, 501-526.	1.4	12
34	Numerical solution of the finite moment problem in a reproducing kernel Hilbert space. <i>Journal of Computational and Applied Mathematics</i> , 1990, 33, 233-244.	2.0	12
35	Analysis of directed networks via partial singular value decomposition and Gauss quadrature. <i>Linear Algebra and Its Applications</i> , 2014, 456, 93-121.	0.9	11
36	A doubly relaxed minimal-norm Gauss-Newton method for underdetermined nonlinear least-squares problems. <i>Applied Numerical Mathematics</i> , 2022, 171, 233-248.	2.1	11

#	ARTICLE	IF	CITATIONS
37	The minimal-norm Gauss-Newton method and some of its regularized variants. Electronic Transactions on Numerical Analysis, 0, 53, 459-480.	0.0	11
38	Spectral factorization of bi-infinite multi-index block Toeplitz matrices. Linear Algebra and Its Applications, 2002, 343-344, 355-380.	0.9	9
39	On the Lanczos and Golub-Kahan reduction methods applied to discrete ill-posed problems. Numerical Linear Algebra With Applications, 2016, 23, 187-204.	1.6	9
40	A spectral method for bipartizing a network and detecting a large anti-community. Journal of Computational and Applied Mathematics, 2020, 373, 112306.	2.0	9
41	Identifying the magnetic permeability in multi-frequency EM data inversion. Electronic Transactions on Numerical Analysis, 0, 27, 1-17.	0.0	9
42	On the numerical inversion of the Laplace transform in reproducing kernel Hilbert spaces. IMA Journal of Numerical Analysis, 1993, 13, 463-475.	2.9	8
43	On the limiting profile arising from orthonormalizing shifts of exponentially decaying functions. IMA Journal of Numerical Analysis, 1998, 18, 331-354.	2.9	8
44	2D TSVD to enhance the resolution of radiometer data. , 2012, , .		8
45	PQser: a Matlab package for spectral seriation. Numerical Algorithms, 2019, 80, 879-902.	1.9	8
46	Solution of second kind Fredholm integral equations by means of Gauss and anti-Gauss quadrature rules. Numerische Mathematik, 2020, 146, 699-728.	1.9	8
47	A rational Arnoldi process with applications. Numerical Linear Algebra With Applications, 2016, 23, 1007-1022.	1.6	6
48	Recovering the electrical conductivity of the soil via a linear integral model. Journal of Computational and Applied Mathematics, 2019, 352, 132-145.	2.0	6
49	Regularized Inversion of Multi-Frequency EM Data in Geophysical Applications. SEMA SIMAI Springer Series, 2016, , 357-369.	0.7	6
50	On the solution of the finite moment problem. Journal of Mathematical Analysis and Applications, 1992, 171, 321-333.	1.0	5
51	On the block Lanczos and block Golub-Kahan reduction methods applied to discrete ill-posed problems. Numerical Linear Algebra With Applications, 2021, 28, e2376.	1.6	5
52	Fast superoptimal preconditioning of multiindex Toeplitz matrices. Linear Algebra and Its Applications, 2006, 418, 576-590.	0.9	4
53	Fast computation of two-level circulant preconditioners. Numerical Algorithms, 2006, 41, 275-295.	1.9	4
54	Smooth and Sparse Inversion of EMI Data from Multi-Configuration Measurements. , 2018, , .		4

#	ARTICLE	IF	CITATIONS
55	Regularized minimal-norm solution of an overdetermined system of first kind integral equations. Numerical Algorithms, 2023, 92, 471-502.	1.9	4
56	Approximation methods for the finite moment problem. Numerical Algorithms, 1993, 5, 391-405.	1.9	3
57	Semi-infinite multi-index perturbed block Toeplitz systems. Linear Algebra and Its Applications, 2003, 366, 459-482.	0.9	3
58	Chained graphs and some applications. Applied Network Science, 2021, 6, .	1.5	3
59	Block matrix models for dynamic networks. Applied Mathematics and Computation, 2021, 402, 126121.	2.2	3
60	Minimal-norm RKHS solution of an integral model in geo-electromagnetism. , 2021, , .		3
61	Numerical solution of the Helmholtz equation in an infinite strip by Wiener-Hopf factorization. Numerical Methods for Partial Differential Equations, 2010, 26, 1247-1274.	3.6	2
62	Recent improvements in photometric stereo for rock art 3D imaging. Digital Applications in Archaeology and Cultural Heritage, 2015, 2, 132-139.	1.3	2
63	An algorithm for computing minimum norm solutions of finite moment problem. , 1990, , 361-368.		2
64	On the numerical inversion of the Laplace transform with boundary constraints. , 1992, , 155-165.		2
65	Scorepochs: A Computer-Aided Scoring Tool for Resting-State M/EEG Epochs. Sensors, 2022, 22, 2853.	3.8	2
66	Identifying the lights position in photometric stereo under unknown lighting. , 2021, , .		2
67	Iterative Methods for the Computation of the Perron Vector of Adjacency Matrices. Mathematics, 2021, 9, 1522.	2.2	1
68	Numerical solution of the finite moment problem in a reproducing kernel Hilbert space. Journal of Computational and Applied Mathematics, 1990, 3, 233-244.	2.0	1
69	Image segmentation by texture analysis. , 0, , .		0
70	An Algorithm for Solving Toeplitz Systems by Embedding in Infinite Systems. , 2005, , 383-401.		0