ZdzisÅ‚aw Jackiewicz

List of Publications by Year
in descending order

109 papers	1,697 citations	304743 22 h-index	414414 32 g-index
114 all docs	114 docs citations	114 times ranked	452 citing authors

#	Article	IF	Citations
1	Construction of `<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si22.svg"><mml:mi>G</mml:mi></mml:math>`- or `<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si23.svg"><mml:mrow><mml:mi>G</mml:mi><mml:mo>(</mml:mo><mml:mi>Ïµ</mml:mi><mml:mo>)</mml:mo></mml:mrow>` general linear methods. Applied Mathematics and Computation, 2022, 431, 127204.	2.2	1
2	Explicit two‐step Runge‐Kutta methods for computational fluid dynamics solvers. International Journal for Numerical Methods in Fluids, 2021, 93, 429-444.	1.6	3
3	Efficient two-step Runge-Kutta methods for fluid dynamics simulations. Applied Numerical Mathematics, 2021, 159, 1-20.	2.1	6
4	Construction of SDIRK methods with dispersive stability functions. Applied Numerical Mathematics, 2021, 160, 265-280.	2.1	2
5	A new class of strong stability preserving general linear methods. Journal of Computational and Applied Mathematics, 2021, 396, 113612.	2.0	1
6	Strong Stability Preserving IMEX Methods for Partitioned Systems of Differential Equations. Communications on Applied Mathematics and Computation, 2021, 3, 719-758.	1.7	1
7	Strong stability preserving implicit‐explicit transformed general linear methods. Mathematics and Computers in Simulation, 2020, 176, 206-225.	4.4	5
8	Numerical simulations of the spread of rabies in two-dimensional space. Applied Numerical Mathematics, 2019, 135, 87-98.	2.1	1
9	Numerical simulations of spread of rabies in a spatially distributed fox population. Mathematics and Computers in Simulation, 2019, 159, 161-182.	4.4	2
10	Strong Stability Preserving General Linear Methods with Runge‐Kutta Stability. Journal of Scientific Computing, 2018, 76, 943-968.	2.3	19
11	Strong stability preserving transformed DIMSIMs. Journal of Computational and Applied Mathematics, 2018, 343, 174-188.	2.0	14
12	Generalized linear multistep methods for ordinary differential equations. Applied Numerical Mathematics, 2017, 114, 165-178.	2.1	6
13	Order reduction phenomenon for general linear methods. Applied Numerical Mathematics, 2017, 119, 94-114.	2.1	5
14	Accurate Implicit‐Explicit General Linear Methods with Inherent Runge‐Kutta Stability. Journal of Scientific Computing, 2017, 70, 1105-1143.	2.3	22
15	Highly stable implicit‐explicit Runge‐Kutta methods. Applied Numerical Mathematics, 2017, 113, 71-92.	2.1	41
16	Construction of IMEX methods with inherent Runge-Kutta stability. AIP Conference Proceedings, 2016, , .	0.4	0
17	General Linear Methods. , 2015, , 589-593.		0
18	Strong Stability Preserving General Linear Methods. Journal of Scientific Computing, 2015, 65, 271-298.	2.3	25

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19	Order conditions for general linear methods. Journal of Computational and Applied Mathematics, 2015, 290, 44-64.	2.0	18
20	STRONG STABILITY PRESERVING MULTISTAGE INTEGRATION METHODS. Mathematical Modelling and Analysis, 2015, 20, 552-577.	1.5	15
21	Construction of strong stability preserving general linear methods. AIP Conference Proceedings, 2015, , .	0.4	1
22	Numerical solution of threshold problems in epidemics and population dynamics. Journal of Computational and Applied Mathematics, 2015, 279, 40-56.	2.0	1
23	Construction of highly stable implicit-explicit general linear methods. , 2015, , .		3
24	Natural Volterra Runge-Kutta methods. Numerical Algorithms, 2014, 65, 421-445.	1.9	18
25	Search for efficient general linear methods for ordinary differential equations. Journal of Computational and Applied Mathematics, 2014, 262, 180-192.	2.0	2
26	Numerical simulations of traveling wave solutions in a drift paradox inspired diffusive delay population model. Mathematics and Computers in Simulation, 2014, 96, 95-103.	4.4	11
27	EFFICIENT GENERAL LINEAR METHODS OF HIGH ORDER WITH INHERENT QUADRATIC STABILITY. Mathematical Modelling and Analysis, 2014, 19, 450-468.	1.5	1
28	EXTRAPOLATED IMPLICIT–EXPLICIT RUNGE–KUTTA METHODS. Mathematical Modelling and Analysis, 2014, 19, 18-43.	1.5	27
29	Extrapolation-based implicit-explicit general linear methods. Numerical Algorithms, 2014, 65, 377-399.	1.9	36
30	Construction of algebraically stable DIMSIMs. Journal of Computational and Applied Mathematics, 2014, 261, 72-84.	2.0	8
31	Numerical search for algebraically stable two-step almost collocation methods. Journal of Computational and Applied Mathematics, 2013, 239, 304-321.	2.0	26
32	OPTIMIZATION-BASED SEARCH FOR NORDSIECK METHODS OF HIGH ORDER WITH QUADRATIC STABILITY POLYNOMIALS. Mathematical Modelling and Analysis, 2012, 17, 293-308.	1.5	17
33	A PRACTICAL APPROACH FOR THE DERIVATION OF ALGEBRAICALLY STABLE TWO-STEP RUNGE-KUTTA METHODS. Mathematical Modelling and Analysis, 2012, 17, 65-77.	1.5	13
34	Search for highly stable two-step Runge–Kutta methods. Applied Numerical Mathematics, 2012, 62, 1361-1379.	2.1	19
35	Explicit Nordsieck methods with quadratic stability. Numerical Algorithms, 2012, 60, 1-25.	1.9	20
36	Perturbed MEBDF methods. Computers and Mathematics With Applications, 2012, 63, 851-861.	2.7	8

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37	Explicit Nordsieck methods with extended stability regions. Applied Mathematics and Computation, 2012, 218, 6056-6066.	2.2	7
38	Construction and implementation of highly stable two-step continuous methods for stiff differential systems. Mathematics and Computers in Simulation, 2011, 81, 1707-1728.	4.4	28
39	Nordsieck methods with computationally verified algebraic stability. Applied Mathematics and Computation, 2011, 217, 8598-8610.	2.2	5
40	General linear methods for Volterra integral equations. Journal of Computational and Applied Mathematics, 2010, 234, 2768-2782.	2.0	16
41	Two-step Runge-Kutta Methods withÂQuadratic Stability Functions. Journal of Scientific Computing, 2010, 44, 191-218.	2.3	26
42	Two-step almost collocation methods for ordinary differential equations. Numerical Algorithms, 2010, 53, 195-217.	1.9	37
43	Continuous two-step Rungeâ€"Kutta methods for ordinary differential equations. Numerical Algorithms, 2010, 54, 169-193.	1.9	29
44	A NEW STRATEGY FOR CHOOSING THE CHEBYSHEVâ€"GEGENBAUER PARAMETERS IN A RECONSTRUCTION BASED ON ASYMPTOTIC ANALYSIS. Mathematical Modelling and Analysis, 2010, 15, 199-222.	1.5	9
45	Correlation between Animal and Mathematical Models for Prostate Cancer Progression. Computational and Mathematical Methods in Medicine, 2009, 10, 241-252.	1.3	14
46	NUMERICAL SOLUTION OF A MODEL FOR BRAIN CANCER PROGRESSION AFTER THERAPY. Mathematical Modelling and Analysis, 2009, 14, 43-56.	1.5	5
47	A strategy for choosing Gegenbauer reconstruction parameters for numerical stability. Applied Mathematics and Computation, 2009, 212, 418-434.	2.2	4
48	Discrete variable methods for delay-differential equations with threshold-type delays. Journal of Computational and Applied Mathematics, 2009, 228, 514-523.	2.0	8
49	Numerical solution of calcium-mediated dendritic branch model. Journal of Computational and Applied Mathematics, 2009, 229, 416-424.	2.0	4
50	Two-step almost collocation methods for Volterra integral equations. Applied Mathematics and Computation, 2008, 204, 839-853.	2.2	41
51	Construction of highly stable parallel two-step Rungeâ€"Kutta methods for delay differential equations. Journal of Computational and Applied Mathematics, 2008, 220, 257-270.	2.0	4
52	Derivation of continuous explicit two-step Rungeâ€"Kutta methods of order three. Journal of Computational and Applied Mathematics, 2007, 205, 764-776.	2.0	11
53	Stochastic approximations of perturbed Fredholm Volterra integro-differential equation arising in mathematical neurosciences. Applied Mathematics and Computation, 2007, 186, 1173-1182.	2.2	6
54	A variant of pseudospectral method for activity-dependent dendritic branch model. Journal of Neuroscience Methods, 2007, 165, 306-319.	2.5	2

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55	Numerical solution of Volterra integral and integro-differential equations with rapidly vanishing convolution kernels. BIT Numerical Mathematics, 2007, 47, 325-350.	2.0	24
56	Error propagation of general linear methods for ordinary differential equations. Journal of Complexity, 2007, 23, 560-580.	1.3	19
57	Numerical solution of a Fredholm integro-differential equation modelling neural networks. Applied Numerical Mathematics, 2006, 56, 423-432.	2.1	26
58	Title is missing!. Applied Numerical Mathematics, 2006, 56, 269-270.	2.1	0
59	Numerical solution of neutral functional differential equations by Adams methods in divided difference form. Journal of Computational and Applied Mathematics, 2006, 189, 592-605.	2.0	23
60	Numerical solution of a problem in the theory of epidemics. Applied Numerical Mathematics, 2006, 56, 533-543.	2.1	6
61	Spectral collocation and waveform relaxation methods for nonlinear delay partial differential equations. Applied Numerical Mathematics, 2006, 56, 433-443.	2.1	67
62	Nordsieck representation of two-step Rungeâ€"Kutta methods for ordinary differential equations. Applied Numerical Mathematics, 2005, 53, 149-163.	2.1	20
63	Construction and Implementation of General Linear Methods for Ordinary Differential Equations: A Review. Journal of Scientific Computing, 2005, 25, 29-49.	2.3	9
64	Determining Analyticity for Parameter Optimization of the Gegenbauer Reconstruction Method. SIAM Journal of Scientific Computing, 2005, 27, 1014-1031.	2.8	12
65	Spectral Versus Pseudospectral Solutions of the Wave Equation by Waveform Relaxation Methods. Journal of Scientific Computing, 2004, 20, 1-28.	2.3	7
66	Unconditionally Stable General Linear Methods for Ordinary Differential Equations. BIT Numerical Mathematics, 2004, 44, 557-570.	2.0	13
67	Construction of General Linear Methods with Rungeâ€"Kutta Stability Properties. Numerical Algorithms, 2004, 36, 53-72.	1.9	28
68	Construction of highly stable two-step W-methods for ordinary differential equations. Journal of Computational and Applied Mathematics, 2004, 167, 389-403.	2.0	12
69	Determination of Optimal Parameters for the Chebyshev--Gegenbauer Reconstruction Method. SIAM Journal of Scientific Computing, 2004, 25, 1187-1198.	2.8	10
70	Stability of Gaussâ€"Radau Pseudospectral Approximations of the One-Dimensional Wave Equation. Journal of Scientific Computing, 2003, 18, 287-313.	2.3	11
71	Construction of two-step Rungeâ€"Kutta methods with large regions of absolute stability. Journal of Computational and Applied Mathematics, 2003, 157, 125-137.	2.0	30
72	Stability analysis of two-step Runge-Kutta methods for delay differential equations. Computers and Mathematics With Applications, 2002, 44, 83-93.	2.7	11

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73	Implementation of DIMSIMs for stiff differential systems. Applied Numerical Mathematics, 2002, 42, 251-267.	2.1	34
74	A note on stability of pseudospectral methods for wave propagation. Journal of Computational and Applied Mathematics, 2002, 143, 127-139.	2.0	11
75	Error Estimation for Nordsieck Methods. Numerical Algorithms, 2002, 31, 75-85.	1.9	14
76	Diagonally implicit multistage integration methods for pseudospectral solutions of the wave equation. Applied Numerical Mathematics, 2000, 34, 219-229.	2.1	4
77	Order conditions for partitioned Runge-Kutta methods. Applications of Mathematics, 2000, 45, 301-316.	0.9	11
78	Frequency analysis of preconditioned waveform relaxation iterations. Applicationes Mathematicae, 1999, 26, 229-242.	0.1	0
79	Construction of diagonally implicit general linear methods of type 1 and 2 for ordinary differential equations. Applied Numerical Mathematics, 1996, 21, 385-415.	2.1	57
80	Variable stepsize diagonally implicit multistage integration methods for ordinary differential equations. Applied Numerical Mathematics, 1995, 16, 343-367.	2.1	16
81	Explicit two-step Runge-Kutta methods. Applications of Mathematics, 1995, 40, 433-456.	0.9	16
82	Stability analysis of time-point relaxation Runge-Kutta methods with respect to tridiagonal systems of differential equations. Applied Numerical Mathematics, 1993, 11, 189-209.	2.1	3
83	Time-point relaxation Runge-Kutta methods for ordinary differential equations. Journal of Computational and Applied Mathematics, 1993, 45, 121-137.	2.0	14
84	Diagonally implicit general linear methods for ordinary differential equations. BIT Numerical Mathematics, 1993, 33, 452-472.	2.0	65
85	Stability analysis of multilag and modified multilag methods for Volterra integrodifferential equations. IMA Journal of Numerical Analysis, 1992, 12, 243-257.	2.9	1
86	Variable-stepsize explicit two-step Runge-Kutta methods. Mathematics of Computation, 1992, 59, 421-421.	2.1	14
87	Local error estimation for singly-implicit formulas by two-step Runge-Kutta methods. BIT Numerical Mathematics, 1992, 32, 104-117.	2.0	6
88	The numerical solution of neutral functional differential equations by Adams predictor- corrector methods. Applied Numerical Mathematics, 1991, 8, 477-491.	2.1	19
89	Stability analysis of discrete recurrence equations of Volterra type with degenerate kernels. Journal of Mathematical Analysis and Applications, 1991, 162, 49-62.	1.0	14
90	Global stability analysis of the Runge-Kutta methods for volterra integral and integro-differential equations with degenerate kernels. Computing (Vienna/New York), 1990, 45, 291-300.	4.8	5

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91	A stability analysis of the trapezoidal method for Volterra integral equations with completely positive kernels. Journal of Mathematical Analysis and Applications, 1990, 152, 324-342.	1.0	5
92	Stability Analysis of Runge-Kutta Methods for Volterra Integral Equations of the Second Kind. IMA Journal of Numerical Analysis, 1990, 10, 103-118.	2.9	42
93	Unstable Neutral Fuctional Differential Equations. Canadian Mathematical Bulletin, 1990, 33, 428-433.	0.5	14
94	Natural continuous extensions of Runge-Kutta methods for Volterra integral equations of the second kind and their applications. Mathematics of Computation, 1989, 52, 49-63.	2.1	20
95	Stability of Numerical Methods for Volterra Integro-Differential Equations of Convolution Type. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 1988, 68, 89-100.	1.6	8
96	Stability Analysis of Modified Multilag Methods for Volterra Integral Equations. IMA Journal of Numerical Analysis, 1987, 7, 473-484.	2.9	2
97	Variable-step variable-order algorithm for the numerical solution of neutral functional differential equations. Applied Numerical Mathematics, 1987, 3, 317-329.	2.1	10
98	Quasilinear Multistep Methods and Variable Step Predictor–Corrector Methods for Neutral Functional-Differential Equations. SIAM Journal on Numerical Analysis, 1986, 23, 423-452.	2.3	35
99	Stability analysis of linear multistep methods for delay differential equations. International Journal of Mathematics and Mathematical Sciences, 1986, 9, 447-458.	0.7	7
100	Boundedness of solutions of difference equations and application to numerical solution of Volterra integral equations of the second kind. Journal of Mathematical Analysis and Applications, 1986, 115, 592-605.	1.0	7
101	Asymptotic stability analysis of ?-methods for functional differential equations. Numerische Mathematik, 1984, 43, 389-396.	1.9	52
102	One-Step Methods of any Order for Neutral Functional Differential Equations. SIAM Journal on Numerical Analysis, 1984, 21, 486-511.	2.3	46
103	A note on the stability of θ-methods for Volterra integral equations of the second kind. Czechoslovak Mathematical Journal, 1984, 34, 349-354.	0.3	1
104	One step methods for the numerical solution of volterra functional differential equations of neutral type. Applicable Analysis, 1981, 12, 1-11.	1.3	9
105	The Numerical Solution of Volterra Functional Differential Equations of Neutral Type. SIAM Journal on Numerical Analysis, 1981, 18, 615-626.	2.3	20
106	Convergence of multistep methods for Volterra functional differential equations. Numerische Mathematik, 1979, 32, 307-332.	1.9	15
107	On the convergence of multistep methods for the Cauchy problem for ordinary differential equations. Computing (Vienna/New York), 1978, 20, 351-361.	4.8	4
108	Global error estimation for explicit general linear methods. Numerical Algorithms, 0, , 1.	1.9	5

#	Article	IF	Citations
109	Global error estimation for explicit second derivative general linear methods. Numerical Algorithms, 0, , 1.	1.9	3