# ZdzisÅ‚aw Jackiewicz

List of Publications by Year
in descending order



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|---|---|---|---|
| 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 | Spectral collocation and waveform relaxation methods for nonlinear delay partial differential equations. Applied Numerical Mathematics, 2006, 56, 433-443. | 2.1 | 67 |
| 2 | Diagonally implicit general linear methods for ordinary differential equations. BIT Numerical Mathematics, 1993, 33, 452-472. | 2.0 | 65 |
| 3 | 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 |
| 4 | Asymptotic stability analysis of ?-methods for functional differential equations. Numerische Mathematik, 1984, 43, 389-396. | 1.9 | 52 |
| 5 | One-Step Methods of any Order for Neutral Functional Differential Equations. SIAM Journal on Numerical Analysis, 1984, 21, 486-511. | 2.3 | 46 |
| 6 | 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 |
| 7 | Two-step almost collocation methods for Volterra integral equations. Applied Mathematics and Computation, 2008, 204, 839-853. | 2.2 | 41 |
| 8 | Highly stable implicitâ€"explicit Rungeâ€"Kutta methods. Applied Numerical Mathematics, 2017, 113, 71-92. | 2.1 | 41 |
| 9 | Two-step almost collocation methods for ordinary differential equations. Numerical Algorithms, 2010, 53, 195-217. | 1.9 | 37 |
| 10 | Extrapolation-based implicit-explicit general linear methods. Numerical Algorithms, 2014, 65, 377-399. | 1.9 | 36 |
| 11 | Quasilinear Multistep Methods and Variable Step Predictorâ€"Corrector Methods for Neutral Functional-Differential Equations. SIAM Journal on Numerical Analysis, 1986, 23, 423-452. | 2.3 | 35 |
| 12 | Implementation of DIMSIMs for stiff differential systems. Applied Numerical Mathematics, 2002, 42, 251-267. | 2.1 | 34 |
| 13 | 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 |
| 14 | Continuous two-step Rungeâ€"Kutta methods for ordinary differential equations. Numerical Algorithms, 2010, 54, 169-193. | 1.9 | 29 |
| 15 | Construction of General Linear Methods with Rungeâ€"Kutta Stability Properties. Numerical Algorithms, 2004, 36, 53-72. | 1.9 | 28 |
| 16 | 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 |
| 17 | EXTRAPOLATED IMPLICITâ€"EXPLICIT RUNGEâ€"KUTTA METHODS. Mathematical Modelling and Analysis, 2014, 19, 18-43. | 1.5 | 27 |
| 18 | Numerical solution of a Fredholm integro-differential equation modelling neural networks. Applied Numerical Mathematics, 2006, 56, 423-432. | 2.1 | 26 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Two-step Runge-Kutta Methods withÂ Quadratic Stability Functions. Journal of Scientific Computing, 2010, 44, 191-218. | 2.3 | 26 |
| 20 | Numerical search for algebraically stable two-step almost collocation methods. Journal of Computational and Applied Mathematics, 2013, 239, 304-321. | 2.0 | 26 |
| 21 | Strong Stability Preserving General Linear Methods. Journal of Scientific Computing, 2015, 65, 271-298. | 2.3 | 25 |
| 22 | Numerical solution of Volterra integral and integro-differential equations with rapidly vanishing convolution kernels. BIT Numerical Mathematics, 2007, 47, 325-350. | 2.0 | 24 |
| 23 | 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 |
| 24 | Accurate Implicitâ€"Explicit General Linear Methods with Inherent Rungeâ€"Kutta Stability. Journal of Scientific Computing, 2017, 70, 1105-1143. | 2.3 | 22 |
| 25 | The Numerical Solution of Volterra Functional Differential Equations of Neutral Type. SIAM Journal on Numerical Analysis, 1981, 18, 615-626. | 2.3 | 20 |
| 26 | 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 |
| 27 | Nordsieck representation of two-step Rungeâ€"Kutta methods for ordinary differential equations. Applied Numerical Mathematics, 2005, 53, 149-163. | 2.1 | 20 |
| 28 | Explicit Nordsieck methods with quadratic stability. Numerical Algorithms, 2012, 60, 1-25. | 1.9 | 20 |
| 29 | The numerical solution of neutral functional differential equations by Adams predictor- corrector methods. Applied Numerical Mathematics, 1991, 8, 477-491. | 2.1 | 19 |
| 30 | Error propagation of general linear methods for ordinary differential equations. Journal of Complexity, 2007, 23, 560-580. | 1.3 | 19 |
| 31 | Search for highly stable two-step Rungeâ€"Kutta methods. Applied Numerical Mathematics, 2012, 62, 1361-1379. | 2.1 | 19 |
| 32 | Strong Stability Preserving General Linear Methods with Rungeâ€"Kutta Stability. Journal of Scientific Computing, 2018, 76, 943-968. | 2.3 | 19 |
| 33 | Natural Volterra Runge-Kutta methods. Numerical Algorithms, 2014, 65, 421-445. | 1.9 | 18 |
| 34 | Order conditions for general linear methods. Journal of Computational and Applied Mathematics, 2015, 290, 44-64. | 2.0 | 18 |
| 35 | OPTIMIZATION-BASED SEARCH FOR NORDSIECK METHODS OF HIGH ORDER WITH QUADRATIC STABILITY POLYNOMIALS. Mathematical Modelling and Analysis, 2012, 17, 293-308. | 1.5 | 17 |
| 36 | Variable stepsize diagonally implicit multistage integration methods for ordinary differential equations. Applied Numerical Mathematics, 1995, 16, 343-367. | 2.1 | 16 |

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|---|---|---|---|
| 37 | General linear methods for Volterra integral equations. Journal of Computational and Applied Mathematics, 2010, 234, 2768-2782. | 2.0 | 16 |
| 38 | Explicit two-step Runge-Kutta methods. Applications of Mathematics, 1995, 40, 433-456. | 0.9 | 16 |
| 39 | Convergence of multistep methods for Volterra functional differential equations. Numerische Mathematik, 1979, 32, 307-332. | 1.9 | 15 |
| 40 | STRONG STABILITY PRESERVING MULTISTAGE INTEGRATION METHODS. Mathematical Modelling and Analysis, 2015, 20, 552-577. | 1.5 | 15 |
| 41 | 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 |
| 42 | Variable-stepsize explicit two-step Runge-Kutta methods. Mathematics of Computation, 1992, 59, 421-421. | 2.1 | 14 |
| 43 | Time-point relaxation Runge-Kutta methods for ordinary differential equations. Journal of Computational and Applied Mathematics, 1993, 45, 121-137. | 2.0 | 14 |
| 44 | Error Estimation for Nordsieck Methods. Numerical Algorithms, 2002, 31, 75-85. | 1.9 | 14 |
| 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 | Strong stability preserving transformed DIMSIMs. Journal of Computational and Applied Mathematics, 2018, 343, 174-188. | 2.0 | 14 |
| 47 | Unstable Neutral Fuctional Differential Equations. Canadian Mathematical Bulletin, 1990, 33, 428-433. | 0.5 | 14 |
| 48 | Unconditionally Stable General Linear Methods for Ordinary Differential Equations. BIT Numerical Mathematics, 2004, 44, 557-570. | 2.0 | 13 |
| 49 | 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 |
| 50 | 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 |
| 51 | Determining Analyticity for Parameter Optimization of the Gegenbauer Reconstruction Method. SIAM Journal of Scientific Computing, 2005, 27, 1014-1031. | 2.8 | 12 |
| 52 | Order conditions for partitioned Runge-Kutta methods. Applications of Mathematics, 2000, 45, 301-316. | 0.9 | 11 |
| 53 | Stability analysis of two-step Runge-Kutta methods for delay differential equations. Computers and Mathematics With Applications, 2002, 44, 83-93. | 2.7 | 11 |
| 54 | A note on stability of pseudospectral methods for wave propagation. Journal of Computational and Applied Mathematics, 2002, 143, 127-139. | 2.0 | 11 |

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| 55 | Stability of Gaussâ€“Radau Pseudospectral Approximations of the One-Dimensional Wave Equation. Journal of Scientific Computing, 2003, 18, 287-313. | 2.3 | 11 |
| 56 | 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 |
| 57 | 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 |
| 58 | Variable-step variable-order algorithm for the numerical solution of neutral functional differential equations. Applied Numerical Mathematics, 1987, 3, 317-329. | 2.1 | 10 |
| 59 | Determination of Optimal Parameters for the Chebyshev--Gegenbauer Reconstruction Method. SIAM Journal of Scientific Computing, 2004, 25, 1187-1198. | 2.8 | 10 |
| 60 | One step methods for the numerical solution of volterra functional differential equations of neutral type. Applicable Analysis, 1981, 12, 1-11. | 1.3 | 9 |
| 61 | Construction and Implementation of General Linear Methods for Ordinary Differential Equations: A Review. Journal of Scientific Computing, 2005, 25, 29-49. | 2.3 | 9 |
| 62 | 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 |
| 63 | 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 |
| 64 | Discrete variable methods for delay-differential equations with threshold-type delays. Journal of Computational and Applied Mathematics, 2009, 228, 514-523. | 2.0 | 8 |
| 65 | Perturbed MEBDF methods. Computers and Mathematics With Applications, 2012, 63, 851-861. | 2.7 | 8 |
| 66 | Construction of algebraically stable DIMSIMs. Journal of Computational and Applied Mathematics, 2014, 261, 72-84. | 2.0 | 8 |
| 67 | Stability analysis of linear multistep methods for delay differential equations. International Journal of Mathematics and Mathematical Sciences, 1986, 9, 447-458. | 0.7 | 7 |
| 68 | 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 |
| 69 | Spectral Versus Pseudospectral Solutions of the Wave Equation by Waveform Relaxation Methods. Journal of Scientific Computing, 2004, 20, 1-28. | 2.3 | 7 |
| 70 | Explicit Nordsieck methods with extended stability regions. Applied Mathematics and Computation, 2012, 218, 6056-6066. | 2.2 | 7 |
| 71 | Local error estimation for singly-implicit formulas by two-step Runge-Kutta methods. BIT Numerical Mathematics, 1992, 32, 104-117. | 2.0 | 6 |
| 72 | Numerical solution of a problem in the theory of epidemics. Applied Numerical Mathematics, 2006, 56, 533-543. | 2.1 | 6 |

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| 73 | Stochastic approximations of perturbed Fredholm Volterra integro-differential equation arising in mathematical neurosciences. Applied Mathematics and Computation, 2007, 186, 1173-1182. | 2.2 | 6 |
| 74 | Generalized linear multistep methods for ordinary differential equations. Applied Numerical Mathematics, 2017, 114, 165-178. | 2.1 | 6 |
| 75 | Efficient two-step Runge-Kutta methods for fluid dynamics simulations. Applied Numerical Mathematics, 2021, 159, 1-20. | 2.1 | 6 |
| 76 | 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 |
| 77 | 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 |
| 78 | NUMERICAL SOLUTION OF A MODEL FOR BRAIN CANCER PROGRESSION AFTER THERAPY. Mathematical Modelling and Analysis, 2009, 14, 43-56. | 1.5 | 5 |
| 79 | Nordsieck methods with computationally verified algebraic stability. Applied Mathematics and Computation, 2011, 217, 8598-8610. | 2.2 | 5 |
| 80 | Order reduction phenomenon for general linear methods. Applied Numerical Mathematics, 2017, 119, 94-114. | 2.1 | 5 |
| 81 | Strong stability preserving implicitâ€“explicit transformed general linear methods. Mathematics and Computers in Simulation, 2020, 176, 206-225. | 4.4 | 5 |
| 82 | Global error estimation for explicit general linear methods. Numerical Algorithms, 0, , 1. | 1.9 | 5 |
| 83 | 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 |
| 84 | Diagonally implicit multistage integration methods for pseudospectral solutions of the wave equation. Applied Numerical Mathematics, 2000, 34, 219-229. | 2.1 | 4 |
| 85 | 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 |
| 86 | A strategy for choosing Gegenbauer reconstruction parameters for numerical stability. Applied Mathematics and Computation, 2009, 212, 418-434. | 2.2 | 4 |
| 87 | Numerical solution of calcium-mediated dendritic branch model. Journal of Computational and Applied Mathematics, 2009, 229, 416-424. | 2.0 | 4 |
| 88 | 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 |
| 89 | Explicit twoâ€step Rungeâ€Kutta methods for computational fluid dynamics solvers. International Journal for Numerical Methods in Fluids, 2021, 93, 429-444. | 1.6 | 3 |
| 90 | Construction of highly stable implicit-explicit general linear methods. , 2015, , . | | 3 |

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| 91 | Global error estimation for explicit second derivative general linear methods. Numerical Algorithms, 0, , 1. | 1.9 | 3 |
| 92 | Stability Analysis of Modified Multilag Methods for Volterra Integral Equations. IMA Journal of Numerical Analysis, 1987, 7, 473-484. | 2.9 | 2 |
| 93 | A variant of pseudospectral method for activity-dependent dendritic branch model. Journal of Neuroscience Methods, 2007, 165, 306-319. | 2.5 | 2 |
| 94 | Search for efficient general linear methods for ordinary differential equations. Journal of Computational and Applied Mathematics, 2014, 262, 180-192. | 2.0 | 2 |
| 95 | Numerical simulations of spread of rabies in a spatially distributed fox population. Mathematics and Computers in Simulation, 2019, 159, 161-182. | 4.4 | 2 |
| 96 | Construction of SDIRK methods with dispersive stability functions. Applied Numerical Mathematics, 2021, 160, 265-280. | 2.1 | 2 |
| 97 | Stability analysis of multilag and modified multilag methods for Volterra integrodifferential equations. IMA Journal of Numerical Analysis, 1992, 12, 243-257. | 2.9 | 1 |
| 98 | EFFICIENT GENERAL LINEAR METHODS OF HIGH ORDER WITH INHERENT QUADRATIC STABILITY. Mathematical Modelling and Analysis, 2014, 19, 450-468. | 1.5 | 1 |
| 99 | Construction of strong stability preserving general linear methods. AIP Conference Proceedings, 2015, , . | 0.4 | 1 |
| 100 | Numerical solution of threshold problems in epidemics and population dynamics. Journal of Computational and Applied Mathematics, 2015, 279, 40-56. | 2.0 | 1 |
| 101 | Numerical simulations of the spread of rabies in two-dimensional space. Applied Numerical Mathematics, 2019, 135, 87-98. | 2.1 | 1 |
| 102 | A new class of strong stability preserving general linear methods. Journal of Computational and Applied Mathematics, 2021, 396, 113612. | 2.0 | 1 |
| 103 | A note on the stability of $heta$-methods for Volterra integral equations of the second kind. Czechoslovak Mathematical Journal, 1984, 34, 349-354. | 0.3 | 1 |
| 104 | Strong Stability Preserving IMEX Methods for Partitioned Systems of Differential Equations. Communications on Applied Mathematics and Computation, 2021, 3, 719-758. | 1.7 | 1 |
| 105 | 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:mr… general linear methods. Applied Mathematics and Computation, 2022, 431, 127204. | 2.2 | 1 |
| 106 | Title is missing!. Applied Numerical Mathematics, 2006, 56, 269-270. | 2.1 | 0 |
| 107 | General Linear Methods. , 2015, , 589-593. | | 0 |
| 108 | Construction of IMEX methods with inherent Runge-Kutta stability. AIP Conference Proceedings, 2016, , . | 0.4 | 0 |

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| 109 | Frequency analysis of preconditioned waveform relaxation iterations. Applicationes Mathematicae, 1999, 26, 229-242. | 0.1 | 0 |