IstvÃ¡n FaragÃ³

List of Publications by Year
in descending order

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92	796	567281 15	610901 24
papers	citations	h-index	g-index

101	101	101	392
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Qualitative Properties of Space-Dependent SIR Models with Constant Delay and Their Numerical Solutions. Computational Methods in Applied Mathematics, 2022, 22, 713-728.	0.8	1
2	Operator splitting and error analysis in malaria modeling. Applied Mathematics and Computation, 2021, 410, 126446.	2.2	0
3	Space dependent models for studying the spread of some diseases. Computers and Mathematics With Applications, 2020, 80, 395-404.	2.7	6
4	Explicit Rungeâ€“Kutta Methods Combined with Advanced Versions of the Richardson Extrapolation. Computational Methods in Applied Mathematics, 2020, 20, 739-762.	0.8	7
5	On nonlinear SchrÃ¶dinger equations on the hyperbolic space. Journal of Mathematical Analysis and Applications, 2020, 492, 124516.	1.0	1
6	Studying the Influence of Climate Changes on European Ozone Levels. Lecture Notes in Computer Science, 2020, , 391-399.	1.3	0
7	The effect of tree diffusion in a two-dimensional continuous model for Easter Island. European Journal of Mathematics, 2019, 5, 845-857.	0.5	1
8	Eigenvalue problems with unbalanced growth: Nonlinear patterns and standing wave solutions. Nonlinear Analysis: Theory, Methods & Applications, 2019, 188, 377-388.	1.1	0
9	Qualitative properties of discrete nonlinear parabolic operators. Numerische Mathematik, 2019, 143, 529-554.	1.9	0
10	Replacing the finite difference methods for nonlinear two-point boundary value problems by successive application of the linear shooting method. Journal of Computational and Applied Mathematics, 2019, 358, 46-60.	2.0	15
11	Absolute Stability and Implementation of the Two-Times Repeated Richardson Extrapolation Together with Explicit Runge-Kutta Methods. Lecture Notes in Computer Science, 2019, , 678-686.	1.3	3
12	Stability Properties of Repeated Richardson Extrapolation Applied Together with Some Implicit Runge-Kutta Methods. Lecture Notes in Computer Science, 2019, , 114-125.	1.3	2
13	Richardson extrapolation for space-time discretization methods with application to the advection equation. Idojaras, 2019, 123, 135-146.	0.4	0
14	Qualitative properties of some discrete models of disease propagation. Journal of Computational and Applied Mathematics, 2018, 340, 486-500.	2.0	6
15	On the zero-stability of multistep methods on smooth nonuniform grids. BIT Numerical Mathematics, 2018, 58, 1125-1143.	2.0	9
16	Qualitative properties of nonlinear parabolic operators II: the case of PDE systems. Journal of Mathematical Analysis and Applications, 2018, 468, 64-86.	1.0	1
17	Reliable numerical modelling of malaria propagation. , 2018, 63, 259-271.		4
18	Operator splitting methods for the Lotkaâ€“Volterra equations. Electronic Journal of Qualitative Theory of Differential Equations, 2018, , 1-19.	0.5	0

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19	Improvement of accuracy of multi-scale models of Li-ion batteries by applying operator splitting techniques. Journal of Computational and Applied Mathematics, 2017, 310, 59-79.	2.0	7
20	Stability of the Richardson Extrapolation combined with some implicit Rungeâ€“Kutta methods. Journal of Computational and Applied Mathematics, 2017, 310, 224-240.	2.0	9
21	Shooting-projection method for two-point boundary value problems. Applied Mathematics Letters, 2017, 72, 10-15.	2.7	21
22	Qualitative properties of nonlinear parabolic operators. Journal of Mathematical Analysis and Applications, 2017, 448, 473-497.	1.0	3
23	Discrete nonnegativity for nonlinear cooperative parabolic PDE systems with non-monotone coupling. Mathematics and Computers in Simulation, 2017, 139, 37-53.	4.4	2
24	On the mesh for difference schemes of higher accuracy for the heat-conduction equation. , 2017, , 127-133.		0
25	On some qualitatively adequate discrete spaceâ€“time models of epidemic propagation. Journal of Computational and Applied Mathematics, 2016, 293, 45-54.	2.0	9
26	Stability of patterns and of constant steady states for a cross-diffusion system. Journal of Computational and Applied Mathematics, 2016, 293, 208-216.	2.0	4
27	The effect of tree-diffusion in a mathematical model of Easter Island's population. Electronic Journal of Qualitative Theory of Differential Equations, 2016, , 1-11.	0.5	4
28	Impact of Climatic Changes on Pollution Levels. Mathematics in Industry, 2016, , 129-161.	0.3	1
29	Numerical stability for nonlinear evolution equations. Computers and Mathematics With Applications, 2015, 70, 2752-2761.	2.7	0
30	Operator Semigroups for Convergence Analysis. Lecture Notes in Computer Science, 2015, , 38-49.	1.3	0
31	Stability concepts and their applications. Computers and Mathematics With Applications, 2014, 67, 2158-2170.	2.7	3
32	Application of Richardson extrapolation for multi-dimensional advection equations. Computers and Mathematics With Applications, 2014, 67, 2279-2293.	2.7	9
33	Generalizations and error analysis of the iterative operator splitting method. Open Mathematics, 2013, 11, .	1.0	3
34	On continuous and discrete maximum principles for elliptic problems with the third boundary condition. Applied Mathematics and Computation, 2013, 219, 7215-7224.	2.2	4
35	An IMEX scheme for reaction-diffusion equations: application for a PEM fuel cell model. Open Mathematics, 2013, 11, .	1.0	2
36	The convergence of diagonally implicit Rungeâ€“Kutta methods combined with Richardson extrapolation. Computers and Mathematics With Applications, 2013, 65, 395-401.	2.7	11

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37	Note on the Convergence of the Implicit Euler Method. Lecture Notes in Computer Science, 2013, , 1-11.	1.3	1
38	Discrete maximum principles for nonlinear parabolic PDE systems. IMA Journal of Numerical Analysis, 2012, 32, 1541-1573.	2.9	29
39	Numerical solution of the Maxwell equations in time-varying media using Magnus expansion. Central European Journal of Mathematics, 2012, 10, 137-149.	0.7	2
40	Richardson Extrapolation combined with the sequential splitting procedure and the Î¸-method. Central European Journal of Mathematics, 2012, 10, 159-172.	0.7	10
41	Influence of Climatic Changes on Pollution Levels in Hungary and Surrounding Countries. Atmosphere, 2011, 2, 201-221.	2.3	21
42	On Modifications of Continuous and Discrete Maximum Principles for Reaction-Diffusion Problems. Advances in Applied Mathematics and Mechanics, 2011, 3, 109-120.	1.2	2
43	Discrete maximum principles for FE solutions of nonstationary diffusion-reaction problems with mixed boundary conditions. Numerical Methods for Partial Differential Equations, 2011, 27, 702-720.	3.6	14
44	Solving Advection Equations by Applying the Crank-Nicolson Scheme Combined with the Richardson Extrapolation. International Journal of Differential Equations, 2011, 2011, 1-16.	0.8	3
45	Richardson Extrapolated Numerical Methods for Treatment of One-Dimensional Advection Equations. Lecture Notes in Computer Science, 2011, , 198-206.	1.3	1
46	Efficient implementation of stable Richardson Extrapolation algorithms. Computers and Mathematics With Applications, 2010, 60, 2309-2325.	2.7	32
47	Discrete maximum principle for finite element parabolic models in higher dimensions. Mathematics and Computers in Simulation, 2010, 80, 1601-1611.	4.4	3
48	Simulation of the transient behavior of fuel cells by using operator splitting techniques for real-time applications. Computers and Chemical Engineering, 2010, 34, 339-348.	3.8	13
49	Special Issue on Advanced Computational Algorithms: Introduction. Journal of Computational and Applied Mathematics, 2010, 235, 345-347.	2.0	0
50	Stability of the Richardson Extrapolation applied together with the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si19.gif" display="inline" overflow="scroll"><mml:mi>Î¸</mml:mi></mml:math>-method. Journal of Computational and Applied Mathematics, 2010, 235, 507-517.	2.0	24
51	On Some Stability Properties of the Richardson Extrapolation Applied Together with the Î¸-Method. Lecture Notes in Computer Science, 2010, , 54-66.	1.3	1
52	Matrix and Discrete Maximum Principles. Lecture Notes in Computer Science, 2010, , 563-570.	1.3	1
53	Continuous and discrete parabolic operators and their qualitative properties. IMA Journal of Numerical Analysis, 2009, 29, 606-631.	2.9	14
54	Application of operator splitting to the Maxwell equations including a source term. Applied Numerical Mathematics, 2009, 59, 522-541.	2.1	19

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55	Richardson-extrapolated sequential splitting and its application. Journal of Computational and Applied Mathematics, 2009, 226, 218-227.	2.0	11
56	Large scale scientific computations: Editorial introduction. Journal of Computational and Applied Mathematics, 2009, 226, 187-189.	2.0	0
57	Qualitative Analysis of the Crank-Nicolson Method for the Heat Conduction Equation. Lecture Notes in Computer Science, 2009, , 44-55.	1.3	2
58	Special issue on advanced numerical algorithms for large-scale computations: Introduction. Computers and Mathematics With Applications, 2008, 55, 2183-2184.	2.7	0
59	Error analysis of the numerical solution of split differential equations. Mathematical and Computer Modelling, 2008, 48, 1090-1106.	2.0	17
60	Relationship between vanishing splitting errors and pairwise commutativity. Applied Mathematics Letters, 2008, 21, 10-14.	2.7	2
61	On the additive splitting procedures and their computer realization. Applied Mathematical Modelling, 2008, 32, 1552-1569.	4.2	5
62	Additive and iterative operator splitting methods and their numerical investigation. Computers and Mathematics With Applications, 2008, 55, 2266-2279.	2.7	12
63	A modified iterated operator splitting method. Applied Mathematical Modelling, 2008, 32, 1542-1551.	4.2	23
64	Numerical and computational issues related to applied mathematical modelling. Applied Mathematical Modelling, 2008, 32, 1475-1476.	4.2	0
65	Different splitting techniques with application to air pollution models. International Journal of Environment and Pollution, 2008, 32, 174.	0.2	10
66	Parallelization of Advection-Diffusion-Chemistry Modules. Lecture Notes in Computer Science, 2008, , 28-39.	1.3	0
67	A review of reliable numerical models for three-dimensional linear parabolic problems. International Journal for Numerical Methods in Engineering, 2007, 70, 25-45.	2.8	12
68	Consistency Analysis of Operator Splitting Methods for C0-Semigroups Expression. Semigroup Forum, 2007, 74, 125-139.	0.6	15
69	Discrete Maximum Principle and Adequate Discretizations of Linear Parabolic Problems. SIAM Journal of Scientific Computing, 2006, 28, 2313-2336.	2.8	54
70	New Operator Splitting Methods and Their Analysis. , 2006, , 443-450.		0
71	On the convergence and local splitting error of different splitting schemes. Progress in Computational Fluid Dynamics, 2005, 5, 495.	0.2	18
72	Weighted sequential splittings and their analysis. Computers and Mathematics With Applications, 2005, 50, 1017-1031.	2.7	60

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73	Discrete maximum principle for linear parabolic problems solved on hybrid meshes. Applied Numerical Mathematics, 2005, 53, 249-264.	2.1	38
74	Investigation of numerical time-integrations of Maxwell's equations using the staggered grid spatial discretization. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2005, 18, 149-169.	1.9	13
75	Preconditioning operators and Sobolevgradients for nonlinear elliptic problems. Computers and Mathematics With Applications, 2005, 50, 1077-1092.	2.7	23
76	Major Conclusions from the Discussions. , 2005, , 395-399.		0
77	Operator splitting and commutativity analysis in the Danish Eulerian Model. Mathematics and Computers in Simulation, 2004, 67, 217-233.	4.4	25
78	Testing weighted splitting schemes on a one-column transport-chemistry model. International Journal of Environment and Pollution, 2004, 22, 3.	0.2	14
79	Testing Weighted Splitting Schemes on a One-Column Transport-Chemistry Model. Lecture Notes in Computer Science, 2004, , 295-302.	1.3	9
80	Discrete Maximum Principle for Galerkin Finite Element Solutions to Parabolic Problems on Rectangular Meshes. , 2004, , 298-307.		4
81	On the Applicationn of Preconditioning Operators for Nonlinear Elliptic Problems. Scientific Computation, 2004, , 247-261.	0.2	0
82	Galerkin Approximations for the Linear Parabolic Equation with the Third Boundary Condition. Applications of Mathematics, 2003, 48, 111-128.	0.9	0
83	On maximum norm contractivity of second order damped single step methods. Calcolo, 2003, 40, 91-108.	1.1	4
84	Variable Preconditioning via Quasi-Newton Methods for Nonlinear Problems in Hilbert Space. SIAM Journal on Numerical Analysis, 2003, 41, 1242-1262.	2.3	25
85	Sharpening the estimate of the stability constant in the maximum-norm of the Crankâ€“Nicolson scheme for the one-dimensional heat equation. Applied Numerical Mathematics, 2002, 42, 133-140.	2.1	11
86	The gradient-finite element method for elliptic problems. Computers and Mathematics With Applications, 2001, 42, 1043-1053.	2.7	14
87	Qualitative analysis of matrix splitting methods. Computers and Mathematics With Applications, 2001, 42, 1055-1067.	2.7	2
88	Sobolev Space Preconditioning for Mixed Nonlinear Elliptic Boundary Value Problems. Lecture Notes in Computer Science, 2001, , 104-112.	1.3	0
89	Proper Weak Regular Splitting for M-Matrices. Lecture Notes in Computer Science, 2001, , 285-291.	1.3	0
90	Finite element method for solving nonlinear parabolic equations. Computers and Mathematics With Applications, 1991, 21, 59-69.	2.7	5

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91	Qualitatively adequate numerical modelling of spatial SIRS-type disease propagation. , 0, , .		0
92	Efficient implementation of advanced Richardson Extrapolation in an atmospheric chemical scheme. Journal of Mathematical Chemistry, 0, , 1.	1.5	2