

IstvÃ¡n FaragÃ³

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4605333/publications.pdf>

Version: 2024-02-01

92
papers

796
citations

567281

15
h-index

610901

24
g-index

101
all docs

101
docs citations

101
times ranked

392
citing authors

#	ARTICLE	IF	CITATIONS
1	Weighted sequential splittings and their analysis. Computers and Mathematics With Applications, 2005, 50, 1017-1031.	2.7	60
2	Discrete Maximum Principle and Adequate Discretizations of Linear Parabolic Problems. SIAM Journal of Scientific Computing, 2006, 28, 2313-2336.	2.8	54
3	Discrete maximum principle for linear parabolic problems solved on hybrid meshes. Applied Numerical Mathematics, 2005, 53, 249-264.	2.1	38
4	Efficient implementation of stable Richardson Extrapolation algorithms. Computers and Mathematics With Applications, 2010, 60, 2309-2325.	2.7	32
5	Discrete maximum principles for nonlinear parabolic PDE systems. IMA Journal of Numerical Analysis, 2012, 32, 1541-1573.	2.9	29
6	Variable Preconditioning via Quasi-Newton Methods for Nonlinear Problems in Hilbert Space. SIAM Journal on Numerical Analysis, 2003, 41, 1242-1262.	2.3	25
7	Operator splitting and commutativity analysis in the Danish Eulerian Model. Mathematics and Computers in Simulation, 2004, 67, 217-233.	4.4	25
8	Stability of the Richardson Extrapolation applied together with the $\hat{\cdot}$ -method. Journal of Computational and Applied Mathematics, 2010, 235, 507-517.	2.0	24
9	Preconditioning operators and Sobolevgradients for nonlinear elliptic problems. Computers and Mathematics With Applications, 2005, 50, 1077-1092.	2.7	23
10	A modified iterated operator splitting method. Applied Mathematical Modelling, 2008, 32, 1542-1551.	4.2	23
11	Influence of Climatic Changes on Pollution Levels in Hungary and Surrounding Countries. Atmosphere, 2011, 2, 201-221.	2.3	21
12	Shooting-projection method for two-point boundary value problems. Applied Mathematics Letters, 2017, 72, 10-15.	2.7	21
13	Application of operator splitting to the Maxwell equations including a source term. Applied Numerical Mathematics, 2009, 59, 522-541.	2.1	19
14	On the convergence and local splitting error of different splitting schemes. Progress in Computational Fluid Dynamics, 2005, 5, 495.	0.2	18
15	Error analysis of the numerical solution of split differential equations. Mathematical and Computer Modelling, 2008, 48, 1090-1106.	2.0	17
16	Consistency Analysis of Operator Splitting Methods for C0-Semigroups Expression. Semigroup Forum, 2007, 74, 125-139.	0.6	15
17	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
18	The gradient-finite element method for elliptic problems. Computers and Mathematics With Applications, 2001, 42, 1043-1053.	2.7	14

#	ARTICLE	IF	CITATIONS
19	Testing weighted splitting schemes on a one-column transport-chemistry model. International Journal of Environment and Pollution, 2004, 22, 3.	0.2	14
20	Continuous and discrete parabolic operators and their qualitative properties. IMA Journal of Numerical Analysis, 2009, 29, 606-631.	2.9	14
21	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
22	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
23	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
24	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
25	Additive and iterative operator splitting methods and their numerical investigation. Computers and Mathematics With Applications, 2008, 55, 2266-2279.	2.7	12
26	Sharpening the estimate of the stability constant in the maximum-norm of the Crank-Nicolson scheme for the one-dimensional heat equation. Applied Numerical Mathematics, 2002, 42, 133-140.	2.1	11
27	Richardson-extrapolated sequential splitting and its application. Journal of Computational and Applied Mathematics, 2009, 226, 218-227.	2.0	11
28	The convergence of diagonally implicit Runge-Kutta methods combined with Richardson extrapolation. Computers and Mathematics With Applications, 2013, 65, 395-401.	2.7	11
29	Different splitting techniques with application to air pollution models. International Journal of Environment and Pollution, 2008, 32, 174.	0.2	10
30	Richardson Extrapolation combined with the sequential splitting procedure and the $\hat{\tau}$ -method. Central European Journal of Mathematics, 2012, 10, 159-172.	0.7	10
31	Application of Richardson extrapolation for multi-dimensional advection equations. Computers and Mathematics With Applications, 2014, 67, 2279-2293.	2.7	9
32	On some qualitatively adequate discrete space-time models of epidemic propagation. Journal of Computational and Applied Mathematics, 2016, 293, 45-54.	2.0	9
33	Stability of the Richardson Extrapolation combined with some implicit Runge-Kutta methods. Journal of Computational and Applied Mathematics, 2017, 310, 224-240.	2.0	9
34	On the zero-stability of multistep methods on smooth nonuniform grids. BIT Numerical Mathematics, 2018, 58, 1125-1143.	2.0	9
35	Testing Weighted Splitting Schemes on a One-Column Transport-Chemistry Model. Lecture Notes in Computer Science, 2004, , 295-302.	1.3	9
36	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

#	ARTICLE	IF	CITATIONS
37	Explicit Runge-Kutta Methods Combined with Advanced Versions of the Richardson Extrapolation. Computational Methods in Applied Mathematics, 2020, 20, 739-762.	0.8	7
38	Qualitative properties of some discrete models of disease propagation. Journal of Computational and Applied Mathematics, 2018, 340, 486-500.	2.0	6
39	Space dependent models for studying the spread of some diseases. Computers and Mathematics With Applications, 2020, 80, 395-404.	2.7	6
40	Finite element method for solving nonlinear parabolic equations. Computers and Mathematics With Applications, 1991, 21, 59-69.	2.7	5
41	On the additive splitting procedures and their computer realization. Applied Mathematical Modelling, 2008, 32, 1552-1569.	4.2	5
42	On maximum norm contractivity of second order damped single step methods. Calcolo, 2003, 40, 91-108.	1.1	4
43	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
44	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
45	Reliable numerical modelling of malaria propagation. , 2018, 63, 259-271.		4
46	Discrete Maximum Principle for Galerkin Finite Element Solutions to Parabolic Problems on Rectangular Meshes. , 2004, , 298-307.		4
47	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
48	Discrete maximum principle for finite element parabolic models in higher dimensions. Mathematics and Computers in Simulation, 2010, 80, 1601-1611.	4.4	3
49	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
50	Generalizations and error analysis of the iterative operator splitting method. Open Mathematics, 2013, 11, .	1.0	3
51	Stability concepts and their applications. Computers and Mathematics With Applications, 2014, 67, 2158-2170.	2.7	3
52	Qualitative properties of nonlinear parabolic operators. Journal of Mathematical Analysis and Applications, 2017, 448, 473-497.	1.0	3
53	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
54	Qualitative analysis of matrix splitting methods. Computers and Mathematics With Applications, 2001, 42, 1055-1067.	2.7	2

#	ARTICLE	IF	CITATIONS
55	Relationship between vanishing splitting errors and pairwise commutativity. Applied Mathematics Letters, 2008, 21, 10-14.	2.7	2
56	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
57	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
58	An IMEX scheme for reaction-diffusion equations: application for a PEM fuel cell model. Open Mathematics, 2013, 11, .	1.0	2
59	Discrete nonnegativity for nonlinear cooperative parabolic PDE systems with non-monotone coupling. Mathematics and Computers in Simulation, 2017, 139, 37-53.	4.4	2
60	Qualitative Analysis of the Crank-Nicolson Method for the Heat Conduction Equation. Lecture Notes in Computer Science, 2009, , 44-55.	1.3	2
61	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
62	Efficient implementation of advanced Richardson Extrapolation in an atmospheric chemical scheme. Journal of Mathematical Chemistry, 0, , 1.	1.5	2
63	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
64	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
65	On nonlinear Schrödinger equations on the hyperbolic space. Journal of Mathematical Analysis and Applications, 2020, 492, 124516.	1.0	1
66	On Some Stability Properties of the Richardson Extrapolation Applied Together with the \hat{I} -Method. Lecture Notes in Computer Science, 2010, , 54-66.	1.3	1
67	Richardson Extrapolated Numerical Methods for Treatment of One-Dimensional Advection Equations. Lecture Notes in Computer Science, 2011, , 198-206.	1.3	1
68	Note on the Convergence of the Implicit Euler Method. Lecture Notes in Computer Science, 2013, , 1-11.	1.3	1
69	Matrix and Discrete Maximum Principles. Lecture Notes in Computer Science, 2010, , 563-570.	1.3	1
70	Impact of Climatic Changes on Pollution Levels. Mathematics in Industry, 2016, , 129-161.	0.3	1
71	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
72	Galerkin Approximations for the Linear Parabolic Equation with the Third Boundary Condition. Applications of Mathematics, 2003, 48, 111-128.	0.9	0

#	ARTICLE	IF	CITATIONS
73	Special issue on advanced numerical algorithms for large-scale computations: Introduction. Computers and Mathematics With Applications, 2008, 55, 2183-2184.	2.7	0
74	Numerical and computational issues related to applied mathematical modelling. Applied Mathematical Modelling, 2008, 32, 1475-1476.	4.2	0
75	Large scale scientific computations: Editorial introduction. Journal of Computational and Applied Mathematics, 2009, 226, 187-189.	2.0	0
76	Special Issue on Advanced Computational Algorithms: Introduction. Journal of Computational and Applied Mathematics, 2010, 235, 345-347.	2.0	0
77	Numerical stability for nonlinear evolution equations. Computers and Mathematics With Applications, 2015, 70, 2752-2761.	2.7	0
78	Eigenvalue problems with unbalanced growth: Nonlinear patterns and standing wave solutions. Nonlinear Analysis: Theory, Methods & Applications, 2019, 188, 377-388.	1.1	0
79	Qualitative properties of discrete nonlinear parabolic operators. Numerische Mathematik, 2019, 143, 529-554.	1.9	0
80	Operator splitting and error analysis in malaria modeling. Applied Mathematics and Computation, 2021, 410, 126446.	2.2	0
81	Sobolev Space Preconditioning for Mixed Nonlinear Elliptic Boundary Value Problems. Lecture Notes in Computer Science, 2001, , 104-112.	1.3	0
82	Proper Weak Regular Splitting for M-Matrices. Lecture Notes in Computer Science, 2001, , 285-291.	1.3	0
83	On the Application of Preconditioning Operators for Nonlinear Elliptic Problems. Scientific Computation, 2004, , 247-261.	0.2	0
84	Parallelization of Advection-Diffusion-Chemistry Modules. Lecture Notes in Computer Science, 2008, , 28-39.	1.3	0
85	Operator Semigroups for Convergence Analysis. Lecture Notes in Computer Science, 2015, , 38-49.	1.3	0
86	Qualitatively adequate numerical modelling of spatial SIRS-type disease propagation. , 0, ,		0
87	On the mesh for difference schemes of higher accuracy for the heat-conduction equation. , 2017, , 127-133.		0
88	Operator splitting methods for the Lotka-Volterra equations. Electronic Journal of Qualitative Theory of Differential Equations, 2018, , 1-19.	0.5	0
89	Richardson extrapolation for space-time discretization methods with application to the advection equation. Idojaras, 2019, 123, 135-146.	0.4	0
90	Studying the Influence of Climate Changes on European Ozone Levels. Lecture Notes in Computer Science, 2020, , 391-399.	1.3	0

#	ARTICLE	IF	CITATIONS
91	New Operator Splitting Methods and Their Analysis. , 2006, , 443-450.		0
92	Major Conclusions from the Discussions. , 2005, , 395-399.		0