

# Marlis Hochbruck

## List of Publications by Year in descending order

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32  
papers

3,115  
citations

567144

15  
h-index

477173

29  
g-index

33  
all docs

33  
docs citations

33  
times ranked

1076  
citing authors

#	ARTICLE	IF	CITATIONS
1	Exponential integrators. <i>Acta Numerica</i> , 2010, 19, 209-286.	6.3	775
2	On Krylov Subspace Approximations to the Matrix Exponential Operator. <i>SIAM Journal on Numerical Analysis</i> , 1997, 34, 1911-1925.	1.1	613
3	Exponential Integrators for Large Systems of Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 1998, 19, 1552-1574.	1.3	398
4	Explicit Exponential Runge-Kutta Methods for Semilinear Parabolic Problems. <i>SIAM Journal on Numerical Analysis</i> , 2005, 43, 1069-1090.	1.1	289
5	A Gautschi-type method for oscillatory second-order differential equations. <i>Numerische Mathematik</i> , 1999, 83, 403-426.	0.9	204
6	Exponential Rosenbrock-Type Methods. <i>SIAM Journal on Numerical Analysis</i> , 2009, 47, 786-803.	1.1	172
7	Preconditioning Lanczos Approximations to the Matrix Exponential. <i>SIAM Journal of Scientific Computing</i> , 2006, 27, 1438-1457.	1.3	158
8	Exponential Runge-Kutta methods for parabolic problems. <i>Applied Numerical Mathematics</i> , 2005, 53, 323-339.	1.2	136
9	Error analysis of exponential integrators for oscillatory second-order differential equations. <i>Journal of Physics A</i> , 2006, 39, 5495-5507.	1.6	74
10	Exponential multistep methods of Adams-type. <i>BIT Numerical Mathematics</i> , 2011, 51, 889-908.	1.0	62
11	Efficient time integration for discontinuous Galerkin approximations of linear wave equations. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2015, 95, 237-259.	0.9	36
12	Convergence of an ADI splitting for Maxwell's equations. <i>Numerische Mathematik</i> , 2015, 129, 535-561.	0.9	34
13	Implicit Runge-Kutta Methods and Discontinuous Galerkin Discretizations for Linear Maxwell's Equations. <i>SIAM Journal on Numerical Analysis</i> , 2015, 53, 485-507.	1.1	25
14	Error Analysis of a Second-Order Locally Implicit Method for Linear Maxwell's Equations. <i>SIAM Journal on Numerical Analysis</i> , 2016, 54, 3167-3191.	1.1	25
15	Efficient multiple time-stepping algorithms of higher order. <i>Journal of Computational Physics</i> , 2015, 285, 133-148.	1.9	15
16	Error analysis of implicit Euler methods for quasilinear hyperbolic evolution equations. <i>Numerische Mathematik</i> , 2017, 135, 547-569.	0.9	13
17	Unified error analysis for nonconforming space discretizations of wave-type equations. <i>IMA Journal of Numerical Analysis</i> , 2019, 39, 1206-1245.	1.5	13
18	Closing the gap between trigonometric integrators and splitting methods for highly oscillatory differential equations. <i>IMA Journal of Numerical Analysis</i> , 2018, 38, 57-74.	1.5	9

#	ARTICLE	IF	CITATIONS
19	Finite element discretization of semilinear acoustic wave equations with kinetic boundary conditions. <i>Electronic Transactions on Numerical Analysis</i> , 0, 53, 522-540.	0.0	8
20	Error analysis for space discretizations of quasilinear wave-type equations. <i>IMA Journal of Numerical Analysis</i> , 2022, 42, 1963-1990.	1.5	7
21	Error analysis of implicit Runge-Kutta methods for quasilinear hyperbolic evolution equations. <i>Numerische Mathematik</i> , 2018, 138, 557-579.	0.9	6
22	An implicit-explicit time discretization scheme for second-order semilinear wave equations with application to dynamic boundary conditions. <i>Numerische Mathematik</i> , 2021, 147, 869-899.	0.9	6
23	Error analysis of a fully discrete discontinuous Galerkin alternating direction implicit discretization of a class of linear wave-type problems. <i>Numerische Mathematik</i> , 2022, 150, 893-927.	0.9	6
24	A Short Course on Exponential Integrators. <i>Series in Contemporary Applied Mathematics</i> , 2015, , 28-49.	0.8	5
25	Heterogeneous Multiscale Method for Maxwell's Equations. <i>Multiscale Modeling and Simulation</i> , 2019, 17, 1147-1171.	0.6	5
26	On the convergence of Lawson methods for semilinear stiff problems. <i>Numerische Mathematik</i> , 2020, 145, 553-580.	0.9	5
27	Error Analysis of Discontinuous Galerkin Discretizations of a Class of Linear Wave-type Problems. <i>Trends in Mathematics</i> , 2020, , 197-218.	0.1	5
28	Upwind discontinuous Galerkin space discretization and locally implicit time integration for linear Maxwell's equations. <i>Mathematics of Computation</i> , 2018, 88, 1121-1153.	1.1	4
29	On the Efficiency of the Peaceman-Rachford ADI-dG Method for Wave-Type Problems. <i>Lecture Notes in Computational Science and Engineering</i> , 2019, , 135-144.	0.1	4
30	On averaged exponential integrators for semilinear wave equations with solutions of low-regularity. <i>SN Partial Differential Equations and Applications</i> , 2021, 2, 1.	0.3	2
31	Exponential Integrators for Quasilinear Wave-Type Equations. <i>SIAM Journal on Numerical Analysis</i> , 2022, 60, 1472-1493.	1.1	1
32	Nonlinear Evolution Equations: Analysis and Numerics. <i>Oberwolfach Reports</i> , 2019, 16, 305-405.	0.0	0