

# Gustaf SÅnderlind

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8885155/publications.pdf>

Version: 2024-02-01

33  
papers

1,415  
citations

489802

18  
h-index

466096

32  
g-index

34  
all docs

34  
docs citations

34  
times ranked

1162  
citing authors

#	ARTICLE	IF	CITATIONS
1	Local error estimation and step size control in adaptive linear multistep methods. Numerical Algorithms, 2021, 86, 537-563.	1.1	7
2	A Software Platform for Adaptive High Order Multistep Methods. ACM Transactions on Mathematical Software, 2020, 46, 1-17.	1.6	1
3	On the zero-stability of multistep methods on smooth nonuniform grids. BIT Numerical Mathematics, 2018, 58, 1125-1143.	1.0	9
4	Vortex ring mixing as a measure of diastolic function of the human heart: Phantom validation and initial observations in healthy volunteers and patients with heart failure. Journal of Magnetic Resonance Imaging, 2016, 43, 1386-1397.	1.9	15
5	Protein Configuration Landscape Fluctuations Revealed by Exciton Transition Polarizations in Single Light Harvesting Complexes. Journal of Physical Chemistry B, 2016, 120, 724-732.	1.2	4
6	Stiffness 1952–2012: Sixty years in search of a definition. BIT Numerical Mathematics, 2015, 55, 531-558.	1.0	27
7	Logarithmic Norms. , 2015, , 826-830.		0
8	Vortex Ring Formation in the Left Ventricle of the Heart: Analysis by 4D Flow MRI and Lagrangian Coherent Structures. Annals of Biomedical Engineering, 2012, 40, 2652-2662.	1.3	114
9	The impact of smooth W-grids in the numerical solution of singular perturbation two-point boundary value problems. Applied Mathematics and Computation, 2012, 218, 6045-6055.	1.4	6
10	Geometric integration of Hamiltonian systems perturbed by Rayleigh damping. BIT Numerical Mathematics, 2011, 51, 977-1007.	1.0	23
11	Automatic grid control in adaptive BVP solvers. Numerical Algorithms, 2011, 56, 61-92.	1.1	12
12	Adaptivity and computational complexity in the numerical solution of ODEs. Journal of Complexity, 2008, 24, 341-361.	0.7	25
13	Constant coefficient linear multistep methods with step density control. Journal of Computational and Applied Mathematics, 2007, 205, 891-900.	1.1	5
14	Adaptive time-stepping and computational stability. Journal of Computational and Applied Mathematics, 2006, 185, 225-243.	1.1	100
15	Evaluating numerical ODE/DAE methods, algorithms and software. Journal of Computational and Applied Mathematics, 2006, 185, 244-260.	1.1	19
16	Time-step selection algorithms: Adaptivity, control, and signal processing. Applied Numerical Mathematics, 2006, 56, 488-502.	1.2	43
17	The logarithmic norm. History and modern theory. BIT Numerical Mathematics, 2006, 46, 631-652.	1.0	125
18	Explicit, Time Reversible, Adaptive Step Size Control. SIAM Journal of Scientific Computing, 2005, 26, 1838-1851.	1.3	45

#	ARTICLE	IF	CITATIONS
19	Digital filters in adaptive time-stepping. ACM Transactions on Mathematical Software, 2003, 29, 1-26.	1.6	107
20	Automatic Control and Adaptive Time-Stepping. Numerical Algorithms, 2002, 31, 281-310.	1.1	121
21	Logarithmic Norms and Nonlinear DAE Stability. BIT Numerical Mathematics, 2002, 42, 823-841.	1.0	11
22	Regular and singular $\theta$ -blocking of difference corrected multistep methods for nonstiff index-2 DAEs. Applied Numerical Mathematics, 2000, 35, 293-305.	1.2	7
23	Stage Value Predictors and Efficient Newton Iterations in Implicit Runge-Kutta Methods. SIAM Journal of Scientific Computing, 1998, 20, 185-202.	1.3	21
24	Control Strategies for the Iterative Solution of Nonlinear Equations in ODE Solvers. SIAM Journal of Scientific Computing, 1997, 18, 23-40.	1.3	50
25	On the construction of error estimators for implicit Runge-Kutta methods. Journal of Computational and Applied Mathematics, 1997, 86, 347-358.	1.1	22
26	Convergence of multistep discretizations of DAEs. BIT Numerical Mathematics, 1995, 35, 143-168.	1.0	9
27	Global Bounds on Numerical Error for Ordinary Differential Equations. Journal of Complexity, 1993, 9, 97-112.	0.7	8
28	Index Reduction in Differential-Algebraic Equations Using Dummy Derivatives. SIAM Journal of Scientific Computing, 1993, 14, 677-692.	1.3	229
29	A multi-purpose system for the numerical integration of ODE's. Applied Mathematics and Computation, 1989, 31, 346-360.	1.4	3
30	API stepsize control for the numerical solution of ordinary differential equations. BIT Numerical Mathematics, 1988, 28, 270-287.	1.0	179
31	Stability and Asymptotic Estimates in Nonautonomous Linear Differential Systems. SIAM Journal on Mathematical Analysis, 1985, 16, 69-92.	0.9	28
32	An error bound for fixed-point iterations. BIT Numerical Mathematics, 1984, 24, 391-393.	1.0	5
33	On nonlinear difference and differential equations. BIT Numerical Mathematics, 1984, 24, 667-680.	1.0	35