

Gustaf S  nderlind

List of Publications by Year in descending order

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33
papers

1,415
citations

430874

18
h-index

414414

32
g-index

34
all docs

34
docs citations

34
times ranked

1024
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Local error estimation and step size control in adaptive linear multistep methods. Numerical Algorithms, 2021, 86, 537-563. | 1.9 | 7 |
| 2 | A Software Platform for Adaptive High Order Multistep Methods. ACM Transactions on Mathematical Software, 2020, 46, 1-17. | 2.9 | 1 |
| 3 | On the zero-stability of multistep methods on smooth nonuniform grids. BIT Numerical Mathematics, 2018, 58, 1125-1143. | 2.0 | 9 |
| 4 | Vortexâ€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. | 3.4 | 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. | 2.6 | 4 |
| 6 | Stiffness 1952â€“2012: Sixty years in search of a definition. BIT Numerical Mathematics, 2015, 55, 531-558. | 2.0 | 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. | 2.5 | 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. | 2.2 | 6 |
| 10 | Geometric integration of Hamiltonian systems perturbed by Rayleigh damping. BIT Numerical Mathematics, 2011, 51, 977-1007. | 2.0 | 23 |
| 11 | Automatic grid control in adaptive BVP solvers. Numerical Algorithms, 2011, 56, 61-92. | 1.9 | 12 |
| 12 | Adaptivity and computational complexity in the numerical solution of ODEs. Journal of Complexity, 2008, 24, 341-361. | 1.3 | 25 |
| 13 | Constant coefficient linear multistep methods with step density control. Journal of Computational and Applied Mathematics, 2007, 205, 891-900. | 2.0 | 5 |
| 14 | Adaptive time-stepping and computational stability. Journal of Computational and Applied Mathematics, 2006, 185, 225-243. | 2.0 | 100 |
| 15 | Evaluating numerical ODE/DAE methods, algorithms and software. Journal of Computational and Applied Mathematics, 2006, 185, 244-260. | 2.0 | 19 |
| 16 | Time-step selection algorithms: Adaptivity, control, and signal processing. Applied Numerical Mathematics, 2006, 56, 488-502. | 2.1 | 43 |
| 17 | The logarithmic norm. History and modern theory. BIT Numerical Mathematics, 2006, 46, 631-652. | 2.0 | 125 |
| 18 | Explicit, Time Reversible, Adaptive Step Size Control. SIAM Journal of Scientific Computing, 2005, 26, 1838-1851. | 2.8 | 45 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Digital filters in adaptive time-stepping. ACM Transactions on Mathematical Software, 2003, 29, 1-26. | 2.9 | 107 |
| 20 | Automatic Control and Adaptive Time-Stepping. Numerical Algorithms, 2002, 31, 281-310. | 1.9 | 121 |
| 21 | Logarithmic Norms and Nonlinear DAE Stability. BIT Numerical Mathematics, 2002, 42, 823-841. | 2.0 | 11 |
| 22 | Regular and singular -blocking of difference corrected multistep methods for nonstiff index-2 DAEs. Applied Numerical Mathematics, 2000, 35, 293-305. | 2.1 | 7 |
| 23 | Stage Value Predictors and Efficient Newton Iterations in Implicit Runge-Kutta Methods. SIAM Journal of Scientific Computing, 1998, 20, 185-202. | 2.8 | 21 |
| 24 | Control Strategies for the Iterative Solution of Nonlinear Equations in ODE Solvers. SIAM Journal of Scientific Computing, 1997, 18, 23-40. | 2.8 | 50 |
| 25 | On the construction of error estimators for implicit Runge-Kutta methods. Journal of Computational and Applied Mathematics, 1997, 86, 347-358. | 2.0 | 22 |
| 26 | Convergence of multistep discretizations of DAEs. BIT Numerical Mathematics, 1995, 35, 143-168. | 2.0 | 9 |
| 27 | Global Bounds on Numerical Error for Ordinary Differential Equations. Journal of Complexity, 1993, 9, 97-112. | 1.3 | 8 |
| 28 | Index Reduction in Differential-Algebraic Equations Using Dummy Derivatives. SIAM Journal of Scientific Computing, 1993, 14, 677-692. | 2.8 | 229 |
| 29 | A multi-purpose system for the numerical integration of ODE's. Applied Mathematics and Computation, 1989, 31, 346-360. | 2.2 | 3 |
| 30 | API stepsize control for the numerical solution of ordinary differential equations. BIT Numerical Mathematics, 1988, 28, 270-287. | 2.0 | 179 |
| 31 | Stability and Asymptotic Estimates in Nonautonomous Linear Differential Systems. SIAM Journal on Mathematical Analysis, 1985, 16, 69-92. | 1.9 | 28 |
| 32 | An error bound for fixed-point iterations. BIT Numerical Mathematics, 1984, 24, 391-393. | 2.0 | 5 |
| 33 | On nonlinear difference and differential equations. BIT Numerical Mathematics, 1984, 24, 667-680. | 2.0 | 35 |