Stig Larsson

List of Publications by Year
in descending order

52 papers	1,607 citations	318942 23 h-index	355658 38 g-index
55 all docs	55 docs citations	55 times ranked	771 citing authors

#	Article	IF	Citations
1	A greedy algorithm for optimal heating in powder-bed-based additive manufacturing. Journal of Mathematics in Industry, 2021, 11, .	0.7	1
2	Mittag--Leffler Euler Integrator for a Stochastic Fractional Order Equation with Additive Noise. SIAM Journal on Numerical Analysis, 2020, 58, 66-85.	1.1	13
3	Analytical solution for heat conduction due to a moving Gaussian heat flux with piecewise constant parameters. Applied Mathematical Modelling, 2019, 66, 227-240.	2.2	32
4	On a Randomized Backward Euler Method for Nonlinear Evolution Equations with Time-Irregular Coefficients. Foundations of Computational Mathematics, 2019, 19, 1387-1430.	1.5	8
5	On the discretisation in time of the stochastic Allen–Cahn equation. Mathematische Nachrichten, 2018, 291, 966-995.	0.4	24
6	Strong Convergence of a Fully Discrete Finite Element Approximation of the Stochastic Cahn--Hilliard Equation. SIAM Journal on Numerical Analysis, 2018, 56, 708-731.	1.1	18
7	A Weak Space-Time Formulation for the Linear Stochastic Heat Equation. International Journal of Applied and Computational Mathematics, 2017, 3, 787-806.	0.9	2
8	Covariance structure of parabolic stochastic partial differential equations with multiplicative Lévy noise. Journal of Differential Equations, 2017, 262, 5896-5927.	1.1	5
9	Numerical Solution of Parabolic Problems Based on a Weak Space-Time Formulation. Computational Methods in Applied Mathematics, 2017, 17, 65-84.	0.4	11
10	Duality in refined Sobolev–Malliavin spaces and weak approximation of SPDE. Stochastics and Partial Differential Equations: Analysis and Computations, 2016, 4, 113-149.	0.5	9
11	Full Discretization of Semilinear Stochastic Wave Equations Driven by Multiplicative Noise. SIAM Journal on Numerical Analysis, 2016, 54, 1093-1119.	1.1	43
12	Weak error analysis for semilinear stochastic Volterra equations with additive noise. Journal of Mathematical Analysis and Applications, 2016, 437, 1283-1304.	0.5	15
13	On the Backward Euler Approximation of the Stochastic Allen-Cahn Equation. Journal of Applied Probability, 2015, 52, 323-338.	0.4	2
14	Weak convergence for a spatial approximation of the nonlinear stochastic heat equation. Mathematics of Computation, 2015, 85, 1335-1358.	1.1	45
15	On the Backward Euler Approximation of the Stochastic Allen-Cahn Equation. Journal of Applied Probability, 2015, 52, 323-338.	0.4	23
16	An Error Estimate for Symplectic Euler Approximation of Optimal Control Problems. SIAM Journal of Scientific Computing, 2015, 37, A946-A969.	1.3	1
17	Discontinuous Galerkin method for an integro-differential equation modeling dynamic fractional order viscoelasticity. Computer Methods in Applied Mechanics and Engineering, 2015, 283, 196-209.	3.4	45
18	Weak convergence of finite element approximations of linear stochastic evolution equations with additive noise II. Fully discrete schemes. BIT Numerical Mathematics, 2013, 53, 497.	1.0	21

#	Article	IF	Citations
19	Optimal closing of a pair trade with a model containing jumps. Applications of Mathematics, 2013, 58, 249-268.	0.9	14
20	Covariance structure of parabolic stochastic partial differential equations. Stochastics and Partial Differential Equations: Analysis and Computations, 2013, 1, 351-364.	0.5	7
21	Posterior contraction rates for the Bayesian approach to linear ill-posed inverse problems. Stochastic Processes and Their Applications, 2013, 123, 3828-3860.	0.4	55
22	A Trigonometric Method for the Linear Stochastic Wave Equation. SIAM Journal on Numerical Analysis, 2013, 51, 204-222.	1.1	46
23	Local pointwise a posteriori gradient error bounds for the Stokes equations. Mathematics of Computation, 2012, 82, 625-649.	1.1	5
24	Optimal regularity for semilinear stochastic partial differential equations with multiplicative noise. Electronic Journal of Probability, 2012, 17, .	0.5	24
25	Weak convergence of finite element approximations of linear stochastic evolution equations with additive noise. BIT Numerical Mathematics, 2012, 52, 85-108.	1.0	46
26	Finite Element Approximation of the Cahnâ€"Hilliardâ€"Cook Equation. SIAM Journal on Numerical Analysis, 2011, 49, 2407-2429.	1.1	42
27	Spatial approximation of stochastic convolutions. Journal of Computational and Applied Mathematics, 2011, 235, 3554-3570.	1.1	12
28	Finite-element approximation of the linearized Cahn-Hilliard-Cook equation. IMA Journal of Numerical Analysis, 2011, 31, 1315-1333.	1.5	24
29	The dual weighted residuals approach to optimal control of ordinary differential equations. BIT Numerical Mathematics, 2010, 50, 587-607.	1.0	2
30	Strong convergence of the finite element method with truncated noise for semilinear parabolic stochastic equations with additive noise. Numerical Algorithms, 2010, 53, 309-320.	1.1	43
31	The continuous Galerkin method for an integro-differential equation modeling dynamic fractional order viscoelasticity. IMA Journal of Numerical Analysis, 2010, 30, 964-986.	1.5	22
32	Finite Element Approximation of the Linear Stochastic Wave Equation with Additive Noise. SIAM Journal on Numerical Analysis, 2010, 48, 408-427.	1.1	57
33	Rate of weak convergence of the finite element method for the stochastic heat equation with additive noise. BIT Numerical Mathematics, 2009, 49, 343-356.	1.0	50
34	Space-time Discretization of an Integro-differential Equation Modeling Quasi-static Fractional-order Viscoelasticity. JVC/Journal of Vibration and Control, 2008, 14, 1631-1649.	1.5	13
35	ADAPTIVE DISCRETIZATION OF AN INTEGRO-DIFFERENTIAL EQUATION MODELING QUASI-STATIC FRACTIONAL ORDER VISCOELASTICITY. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 397-401.	0.4	0
36	Linearly Implicit Finite Element Methods for the Time-Dependent Joule Heating Problem. BIT Numerical Mathematics, 2005, 45, 429-442.	1.0	30

#	ARTICLE	IF	CITATIONS
37	Adaptive discretization of fractional order viscoelasticity using sparse time history. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 4567-4590.	3.4	44
38	Adaptive discretization of an integro-differential equation with a weakly singular convolution kernel. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 5285-5304.	3.4	24
39	Pointwise a Posteriori Error Analysis for an Adaptive Penalty Finite Element Method for the Obstacle Problem. Computational Methods in Applied Mathematics, 2001, 1, 18-38.	0.4	18
40	A shadowing result with applications to finite element approximation of reaction-diffusion equations. Mathematics of Computation, 1999, 68, 55-73.	1.1	15
41	Adaptive Finite Element Methods for Parabolic Problems VI: Analytic Semigroups. SIAM Journal on Numerical Analysis, 1998, 35, 1315-1325.	1.1	63
42	Numerical solution of parabolic integro-differential equations by the discontinuous Galerkin method. Mathematics of Computation, 1998, 67, 45-71.	1.1	108
43	The Behavior of Finite Element Solutions of Semilinear Parabolic Problems Near Stationary Points. SIAM Journal on Numerical Analysis, 1994, 31, 1000-1018.	1.1	29
44	The stability of rational approximations of analytic semigroups. BIT Numerical Mathematics, 1993, 33, 74-84.	1.0	83
45	THE DISCRETE ORDINATES METHOD FOR THE NEUTRON TRANSPORT EQUATION IN AN INFINITE CYLINDRICAL DOMAIN. Mathematical Models and Methods in Applied Sciences, 1992, 02, 317-338.	1.7	9
46	Error estimates with smooth and nonsmooth data for a finite element method for the Cahn-Hilliard equation. Mathematics of Computation, 1992, 58, 603.	1.1	140
47	Finite-Element Methods for a Strongly Damped Wave Equation. IMA Journal of Numerical Analysis, 1991, 11, 115-142.	1.5	67
48	Interpolation of coefficients and transformation of the dependent variable in finite element methods for the non-linear heat equation. Mathematical Methods in the Applied Sciences, 1989, 11, 105-124.	1.2	30
49	The Long-Time Behavior of Finite-Element Approximations of Solutions to Semilinear Parabolic Problems. SIAM Journal on Numerical Analysis, 1989, 26, 348-365.	1.1	59
50	Error Estimates of Optimal Order for Finite Element Methods with Interpolated Coefficients for the Nonlinear Heat Equation. IMA Journal of Numerical Analysis, 1989, 9, 507-524.	1.5	38
51	Error estimates for spatially discrete approximations of semilinear parabolic equations with nonsmooth initial data. Mathematics of Computation, 1987, 49, 331-357.	1.1	46
52	Error estimates of the backward Euler–Maruyama method for multi-valued stochastic differential equations. BIT Numerical Mathematics, 0, , 1.	1.0	2