Martin Eigel

List of Publications by Year
in descending order

24 papers	317 citations	1040056 9 h-index	839539 18 g-index
24 all docs	24 docs citations	24 times ranked	238 citing authors

#	Article	IF	Citations
1	Adaptive stochastic Galerkin FEM. Computer Methods in Applied Mechanics and Engineering, 2014, 270, 247-269.	6.6	78
2	Influence of cell shape, inhomogeneities and diffusion barriers in cell polarization models. Physical Biology, 2015, 12, 066014.	1.8	42
3	A convergent adaptive stochastic Galerkin finite element method with quasi-optimal spatial meshes. ESAIM: Mathematical Modelling and Numerical Analysis, 2015, 49, 1367-1398.	1.9	34
4	Adaptive stochastic Galerkin FEM with hierarchical tensor representations. Numerische Mathematik, 2017, 136, 765-803.	1.9	28
5	An Adaptive Multilevel Monte Carlo Method with Stochastic Bounds for Quantities of Interest with Uncertain Data. SIAM-ASA Journal on Uncertainty Quantification, 2016, 4, 1219-1245.	2.0	23
6	Variational Monte Carlo—bridging concepts of machine learning and high-dimensional partial differential equations. Advances in Computational Mathematics, 2019, 45, 2503-2532.	1.6	16
7	Local Equilibration Error Estimators for Guaranteed Error Control in Adaptive Stochastic Higher-Order Galerkin Finite Element Methods. SIAM-ASA Journal on Uncertainty Quantification, 2016, 4, 1372-1397.	2.0	14
8	Sampling-free Bayesian inversion with adaptive hierarchical tensor representations. Inverse Problems, 2018, 34, 035010.	2.0	11
9	Assessment and design of an engineering structure with polymorphic uncertainty quantification. GAMM Mitteilungen, 2019, 42, e201900009.	5.5	11
10	On the Convergence of Adaptive Stochastic Collocation for Elliptic Partial Differential Equations with Affine Diffusion. SIAM Journal on Numerical Analysis, 2022, 60, 659-687.	2.3	9
11	Non-intrusive Tensor Reconstruction for High-Dimensional Random PDEs. Computational Methods in Applied Mathematics, 2019, 19, 39-53.	0.8	8
12	Adaptive stochastic Galerkin FEM for lognormal coefficients in hierarchical tensor representations. Numerische Mathematik, 2020, 145, 655-692.	1.9	7
13	Comparison of various uncertainty models with experimental investigations regarding the failure of plates with holes. Reliability Engineering and System Safety, 2020, 203, 107106.	8.9	7
14	Low-rank tensor reconstruction of concentrated densities with application to Bayesian inversion. Statistics and Computing, 2022, 32, 1.	1.5	6
15	SDE Based Regression for Linear Random PDEs. SIAM Journal of Scientific Computing, 2017, 39, A1168-A1200.	2.8	5
16	Risk averse stochastic structural topology optimization. Computer Methods in Applied Mechanics and Engineering, 2018, 334, 470-482.	6.6	5
17	A local hybrid surrogate-based finite element tearing interconnecting dual-primal method for nonsmooth random partial differential equations. International Journal for Numerical Methods in Engineering, 2021, 122, 1001-1030.	2.8	4
18	Convergence bounds for empirical nonlinear least-squares. ESAIM: Mathematical Modelling and Numerical Analysis, 2022, 56, 79-104.	1.9	3

#	Article	IF	Citations
19	An Adaptive Stochastic Galerkin Tensor Train Discretization for Randomly Perturbed Domains. SIAM-ASA Journal on Uncertainty Quantification, 2020, 8, 1189-1214.	2.0	2
20	A hybrid stochastic domain decomposition method for partial differential equations with localised possibly rough random data. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800434.	0.2	1
21	Low rank surrogates for fuzzyâ€stochastic partial differential equations. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900376.	0.2	1
22	OptTopo: Automated set-point optimization for coupled systems using topology information. , 2022, , .		1
23	Topology Optimisation under Uncertainties with Neural Networks. Algorithms, 2022, 15, 241.	2.1	1
24	A posteriori error control for stationary coupled bulk-surface equations. IMA Journal of Numerical Analysis, 2018, 38, 271-298.	2.9	0