Fabio Nobile

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6285939/publications.pdf

Version: 2024-02-01

98 papers	6,696 citations	101543 36 h-index	60623 81 g-index
99 all docs	99 docs citations	99 times ranked	3307 citing authors

#	Article	IF	Citations
1	Fast approximation by periodic kernel-based lattice-point interpolation with application in uncertainty quantification. Numerische Mathematik, 2022, 150, 33-77.	1.9	3
2	Stable high-order randomized cubature formulae in arbitrary dimension. Journal of Approximation Theory, 2022, 275, 105706.	0.8	7
3	Computational electrophysiology of the coronary sinus branches based on electro-anatomical mapping for the prediction of the latest activated region. Medical and Biological Engineering and Computing, 2022, 60, 2307-2319.	2.8	2
4	Multilevel ensemble Kalman filtering for spatio-temporal processes. Numerische Mathematik, 2021, 147, 71-125.	1.9	7
5	Existence of dynamical low rank approximations for random semi-linear evolutionary equations on the maximal interval. Stochastics and Partial Differential Equations: Analysis and Computations, 2021, 9, 603-629.	0.9	3
6	PDE-Constrained Optimal Control Problems with Uncertain Parameters using SAGA. SIAM-ASA Journal on Uncertainty Quantification, 2021, 9, 979-1012.	2.0	7
7	Function integration, reconstruction and approximation using rank-1 lattices. Mathematics of Computation, 2021, 90, 1861-1897.	2.1	10
8	A hybrid collocation-perturbation approach for PDEs with random domains. Advances in Computational Mathematics, 2021, 47, 1.	1.6	4
9	Complexity Analysis of stochastic gradient methods for PDE-constrained optimal Control Problems with uncertain parameters. ESAIM: Mathematical Modelling and Numerical Analysis, 2021, 55, 1599-1633.	1.9	16
10	Non-intrusive double-greedy parametric model reduction by interpolation of frequency-domain rational surrogates. ESAIM: Mathematical Modelling and Numerical Analysis, 2021, 55, 1895-1920.	1.9	3
11	Stability properties of a projector-splitting scheme for dynamical low rank approximation of random parabolic equations. Numerische Mathematik, 2021, 149, 973-1024.	1.9	5
12	A Posteriori Error Estimation for the Stochastic Collocation Finite Element Approximation of the Heat Equation with Random Coefficients. Lecture Notes in Computational Science and Engineering, 2021, , 127-159.	0.3	0
13	Integration of activation maps of epicardial veins in computational cardiac electrophysiology. Computers in Biology and Medicine, 2020, 127, 104047.	7.0	11
14	Regularity and sparse approximation of the recursive first moment equations for the lognormal Darcy problem. Computers and Mathematics With Applications, 2020, 80, 2925-2947.	2.7	5
15	Sparse Polynomial Chaos expansions using variational relevance vector machines. Journal of Computational Physics, 2020, 416, 109498.	3.8	14
16	Least-Squares PadÃ© approximation of parametric and stochastic Helmholtz maps. Advances in Computational Mathematics, 2020, 46, 1.	1.6	7
17	Multilevel weighted least squares polynomial approximation. ESAIM: Mathematical Modelling and Numerical Analysis, 2020, 54, 649-677.	1.9	5
18	Symplectic dynamical low rank approximation of wave equations with random parameters. BIT Numerical Mathematics, 2020, 60, 1153-1201.	2.0	9

#	Article	IF	Citations
19	Fast Least-Squares PadÃ© approximation of problems with normal operators and meromorphic structure. Mathematics of Computation, 2020, 89, 1229-1257.	2.1	7
20	Continuation Multi-level Monte Carlo. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2019, , 305-325.	0.3	2
21	Continuation Multilevel Monte Carlo Evolutionary Algorithm for Robust Aerodynamic Shape Design. Journal of Aircraft, 2019, 56, 771-786.	2.4	8
22	Modeling spatially dependent functional data via regression with differential regularization. Journal of Multivariate Analysis, 2019, 170, 275-295.	1.0	18
23	Robust Design with MLMC. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2019, , 529-540.	0.3	0
24	Sparse approximation of multilinear problems with applications to kernel-based methods in UQ. Numerische Mathematik, 2018, 139, 247-280.	1.9	4
25	Uncertainty Quantification of geochemical and mechanical compaction in layered sedimentary basins. Computer Methods in Applied Mechanics and Engineering, 2018, 328, 122-146.	6.6	18
26	Dual Dynamically Orthogonal approximation of incompressible Navier Stokes equations with random boundary conditions. Journal of Computational Physics, 2018, 354, 135-162.	3.8	24
27	A Posteriori Error Estimation for the Stochastic Collocation Finite Element Method. SIAM Journal on Numerical Analysis, 2018, 56, 3121-3143.	2.3	17
28	Convergence analysis of PadÃ© approximations for Helmholtz frequency response problems. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 1261-1284.	1.9	8
29	A posteriori error estimation for the steady Navierâ€“Stokes equations in random domains. Computer Methods in Applied Mechanics and Engineering, 2017, 313, 483-511.	6.6	8
30	On uncertainty quantification in hydrogeology and hydrogeophysics. Advances in Water Resources, 2017, 110, 166-181.	3.8	82
31	A theoretical study of COmpRessed SolvING for advection-diffusion-reaction problems. Mathematics of Computation, 2017, 87, 1-38.	2.1	12
32	Discrete Least-Squares Approximations over Optimized Downward Closed Polynomial Spaces in Arbitrary Dimension. Constructive Approximation, 2017, 45, 497-519.	3.0	8
33	Multi-index Stochastic Collocation Convergence Rates for Random PDEs with Parametric Regularity. Foundations of Computational Mathematics, 2016, 16, 1555-1605.	2.5	17
34	Numerical methods for random and stochastic partial differential equations. Stochastics and Partial Differential Equations: Analysis and Computations, 2016, 4, 1-2.	0.9	1
35	Multi-Index Stochastic Collocation for random PDEs. Computer Methods in Applied Mechanics and Engineering, 2016, 306, 95-122.	6.6	40
36	Analytic regularity and collocation approximation for elliptic PDEs with random domain deformations. Computers and Mathematics With Applications, 2016, 71, 1173-1197.	2.7	36

#	Article	IF	Citations
37	A posteriori error estimation for elliptic partial differential equations with small uncertainties. Numerical Methods for Partial Differential Equations, 2016, 32, 175-212.	3.6	11
38	Optimization of mesh hierarchies in multilevel Monte Carlo samplers. Stochastics and Partial Differential Equations: Analysis and Computations, 2016, 4, 76-112.	0.9	13
39	Multi-index Monte Carlo: when sparsity meets sampling. Numerische Mathematik, 2016, 132, 767-806.	1.9	82
40	An Adaptive Sparse Grid Algorithm for Elliptic PDEs with Lognormal Diffusion Coefficient. Lecture Notes in Computational Science and Engineering, 2016, , 191-220.	0.3	16
41	Discrete least squares polynomial approximation with random evaluations â^' application to parametric and stochastic elliptic PDEs. ESAIM: Mathematical Modelling and Numerical Analysis, 2015, 49, 815-837.	1.9	60
42	A Multi Level Monte Carlo method with control variate for elliptic PDEs with log-normal coefficients. Stochastics and Partial Differential Equations: Analysis and Computations, 2015, 3, 398-444.	0.9	22
43	Analysis and computation of the elastic wave equation with random coefficients. Computers and Mathematics With Applications, 2015, 70, 2454-2473.	2.7	18
44	EDITORIAL PREFACE: NUMERICAL METHODS FOR UNCERTAINTY QUANTIFICATION. , 2015, 5, vii-viii.		0
45	Convergence estimates in probability and in expectation for discrete least squares with noisy evaluations at random points. Journal of Multivariate Analysis, 2015, 142, 167-182.	1.0	13
46	Blood Flow Velocity Field Estimation Via Spatial Regression With PDE Penalization. Journal of the American Statistical Association, 2015, 110, 1057-1071.	3.1	28
47	A continuation multilevel Monte Carlo algorithm. BIT Numerical Mathematics, 2015, 55, 399-432.	2.0	73
48	An effective algorithm for the generation of patient-specific Purkinje networks in computational electrocardiology. Journal of Computational Physics, 2015, 283, 495-517.	3.8	30
49	Analysis of discrete least squares on multivariate polynomial spaces with evaluations at low-discrepancy point sets. Journal of Complexity, 2015, 31, 517-542.	1.3	27
50	Error Analysis of the Dynamically Orthogonal Approximation of Time Dependent Random PDEs. SIAM Journal of Scientific Computing, 2015, 37, A776-A810.	2.8	48
51	Low-Rank Tensor Approximation for High-Order Correlation Functions of Gaussian Random Fields. SIAM-ASA Journal on Uncertainty Quantification, 2015, 3, 393-416.	2.0	10
52	Comparison of Clenshawâ€“Curtis and Leja Quasi-Optimal Sparse Grids for the Approximation of Random PDEs. Lecture Notes in Computational Science and Engineering, 2015, , 475-482.	0.3	7
53	Analysis and Computation of Hyperbolic PDEs with Random Data. , 2015, , 51-58.		0
54	Computational generation of the Purkinje network driven by clinical measurements: The case of pathological propagations. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 1558-1577.	2.1	23

#	Article	IF	Citations
55	Moment equations for the mixed formulation of the Hodge Laplacian with stochastic loading term. IMA Journal of Numerical Analysis, 2014, 34, 1328-1360.	2.9	11
56	Mixed Finite Elements for Spatial Regression with PDE Penalization. SIAM-ASA Journal on Uncertainty Quantification, 2014, 2, 305-335.	2.0	18
57	Patient-specific generation of the Purkinje network driven by clinical measurements of a normal propagation. Medical and Biological Engineering and Computing, 2014, 52, 813-826.	2.8	44
58	Analysis of Discrete $$L^2$$ L 2 Projection on Polynomial Spaces with Random Evaluations. Foundations of Computational Mathematics, 2014, 14, 419.	2.5	58
59	Perturbation Analysis for the Darcy Problem with Log-Normal Permeability. SIAM-ASA Journal on Uncertainty Quantification, 2014, 2, 223-244.	2.0	13
60	Convergence of quasi-optimal Stochastic Galerkin methods for a class of PDES with random coefficients. Computers and Mathematics With Applications, 2014, 67, 732-751.	2.7	47
61	Inexact accurate partitioned algorithms for fluidâ€“structure interaction problems with finite elasticity in haemodynamics. Journal of Computational Physics, 2014, 273, 598-617.	3.8	31
62	A Quasi-optimal Sparse Grids Procedure for Groundwater Flows. Lecture Notes in Computational Science and Engineering, 2014, , 1-16.	0.3	7
63	A stochastic collocation method for the second order wave equation with a discontinuous random speed. Numerische Mathematik, 2013, 123, 493-536.	1.9	47
64	Time accurate partitioned algorithms for the solution of fluidâ€“structure interaction problems in haemodynamics. Computers and Fluids, 2013, 86, 470-482.	2.5	38
65	Approximation of Quantities of Interest in Stochastic PDEs by the Random Discrete L^2 Projection on Polynomial Spaces. SIAM Journal of Scientific Computing, 2013, 35, A1440-A1460.	2.8	54
66	ON THE OPTIMAL POLYNOMIAL APPROXIMATION OF STOCHASTIC PDES BY GALERKIN AND COLLOCATION METHODS. Mathematical Models and Methods in Applied Sciences, 2012, 22, .	3.3	99
67	Partitioned Algorithms for Fluid-Structure Interaction Problems in Haemodynamics. Milan Journal of Mathematics, 2012, 80, 443-467.	1.1	28
68	An active strain electromechanical model for cardiac tissue. International Journal for Numerical Methods in Biomedical Engineering, 2012, 28, 52-71.	2.1	69
69	Efficient algorithms for the solution of fluid-structure interaction problems in haemodynamic applications. , 2012, , 355-362.		3
70	Electromechanical Coupling in Cardiac Dynamics: The Active Strain Approach. SIAM Journal on Applied Mathematics, 2011, 71, 605-621.	1.8	82
71	An a posteriori error estimator for model adaptivity in electrocardiology. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 2727-2737.	6.6	13
72	Trends in biomedical engineering: focus on Patient Specific Modeling and Life Support Systems. Journal of Applied Biomaterials and Biomechanics, 2011, 9, 109-117.	0.4	1

#	Article	IF	Citations
73	Stochastic Spectral Galerkin and Collocation Methods for PDEs with Random Coefficients: A Numerical Comparison. Lecture Notes in Computational Science and Engineering, 2011, , 43-62.	0.3	77
74	Analysis and Optimization of Robinâ€“Robin Partitioned Procedures in Fluid-Structure Interaction Problems. SIAM Journal on Numerical Analysis, 2010, 48, 2091-2116.	2.3	56
75	A Stochastic Collocation Method for Elliptic Partial Differential Equations with Random Input Data. SIAM Review, 2010, 52, 317-355.	9.5	268
76	Analysis and implementation issues for the numerical approximation of parabolic equations with random coefficients. International Journal for Numerical Methods in Engineering, 2009, 80, 979-1006.	2.8	65
77	Robinâ€“Robin preconditioned Krylov methods for fluidâ€“structure interaction problems. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 2768-2784.	6.6	88
78	A model-based block-triangular preconditioner for the Bidomain system in electrocardiology. Journal of Computational Physics, 2009, 228, 3625-3639.	3.8	52
79	Coupling strategies for the numerical simulation of blood flow in deformable arteries by 3D and 1D models. Mathematical and Computer Modelling, 2009, 49, 2152-2160.	2.0	29
80	Fluidâ€“structure partitioned procedures based on Robin transmission conditions. Journal of Computational Physics, 2008, 227, 7027-7051.	3.8	212
81	A systematic approach to model validation based on Bayesian updates and prediction related rejection criteria. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2517-2539.	6.6	63
82	Formulation of the static frame problem. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2496-2499.	6.6	12
83	An Effective Fluid-Structure Interaction Formulation for Vascular Dynamics by Generalized Robin Conditions. SIAM Journal of Scientific Computing, 2008, 30, 731-763.	2.8	157
84	A Sparse Grid Stochastic Collocation Method for Partial Differential Equations with Random Input Data. SIAM Journal on Numerical Analysis, 2008, 46, 2309-2345.	2.3	819
85	An Anisotropic Sparse Grid Stochastic Collocation Method for Partial Differential Equations with Random Input Data. SIAM Journal on Numerical Analysis, 2008, 46, 2411-2442.	2.3	426
86	On the stability of the coupling of 3D and 1D fluid-structure interaction models for blood flow simulations. ESAIM: Mathematical Modelling and Numerical Analysis, 2007, 41, 743-769.	1.9	71
87	A Stochastic Collocation Method for Elliptic Partial Differential Equations with Random Input Data. SIAM Journal on Numerical Analysis, 2007, 45, 1005-1034.	2.3	922
88	Reliability of computational science. Numerical Methods for Partial Differential Equations, 2007, 23, 753-784.	3.6	44
89	Theory and methodology for estimation and control of errors due to modeling, approximation, and uncertainty. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 195-204.	6.6	53
90	Added-mass effect in the design of partitioned algorithms for fluidâ€“structure problems. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 4506-4527.	6.6	635

#	Article	IF	Citations
91	Worst case scenario analysis for elliptic problems with uncertainty. Numerische Mathematik, 2005, 101, 185-219.	1.9	41
92	Analysis of a subdomain-based error estimator for finite element approximations of elliptic problems. Numerical Methods for Partial Differential Equations, 2004, 20, 165-192.	3.6	25
93	Stability analysis of second-order time accurate schemes for ALEâ€“FEM. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 4097-4116.	6.6	115
94	Modified fixed point algorithm in fluidâ€“structure interaction. Comptes Rendus - Mecanique, 2003, 331, 525-530.	2.1	0
95	Numerical Treatment of Defective Boundary Conditions for the Navier--Stokes Equations. SIAM Journal on Numerical Analysis, 2002, 40, 376-401.	2.3	172
96	A One Dimensional Model for Blood Flow: Application to Vascular Prosthesis. Lecture Notes in Computational Science and Engineering, 2002, , 137-153.	0.3	38
97	On the coupling of 3D and 1D Navierâ€“Stokes equations for flow problems in compliant vessels. Computer Methods in Applied Mechanics and Engineering, 2001, 191, 561-582.	6.6	454
98	Multiscale modelling of the circulatory system: a preliminary analysis. Computing and Visualization in Science, 1999, 2, 75-83.	1.2	230