

Boris Vexler

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

52
papers

1,423
citations

22
h-index

37
g-index

54
ext. papers

1,547
ext. citations

1.8
avg, IF

5.07
L-index

#	Paper	IF	Citations
52	New regularity results and finite element error estimates for a class of parabolic optimal control problems with pointwise state constraints. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2021 , 27, 4	1	4
51	Global and Local Pointwise Error Estimates for Finite Element Approximations to the Stokes Problem on Convex Polyhedra. <i>SIAM Journal on Numerical Analysis</i> , 2020 , 58, 1531-1555	2.4	2
50	Numerical analysis of sparse initial data identification for parabolic problems. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2020 , 54, 1139-1180	1.8	3
49	Optimal finite element error estimates for an optimal control problem governed by the wave equation with controls of bounded variation. <i>IMA Journal of Numerical Analysis</i> , 2020 ,	1.8	2
48	Error Estimates for Space-Time Discretization of Parabolic Time-Optimal Control Problems with Bang-Bang Controls. <i>SIAM Journal on Control and Optimization</i> , 2019 , 57, 1730-1756	1.9	7
47	A Priori Error Estimates for Space-Time Finite Element Discretization of Parabolic Time-Optimal Control Problems. <i>SIAM Journal on Control and Optimization</i> , 2019 , 57, 129-162	1.9	2
46	On a finite element method for measure-valued optimal control problems governed by the 1D generalized wave equation. <i>Comptes Rendus Mathematique</i> , 2018 , 356, 523-531	0.4	
45	Discrete Maximal Parabolic Regularity for Galerkin Finite Element Methods for Nonautonomous Parabolic Problems. <i>SIAM Journal on Numerical Analysis</i> , 2018 , 56, 2178-2202	2.4	6
44	Finite element error analysis for measure-valued optimal control problems governed by a 1D wave equation with variable coefficients. <i>Mathematical Control and Related Fields</i> , 2018 , 8, 411-449	1.5	5
43	Optimal error estimates for fully discrete Galerkin approximations of semilinear parabolic equations. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2018 , 52, 2307-2325	1.8	10
42	Optimization of Fishing Strategies in Space and Time as a Non-convex Optimal Control Problem. <i>Journal of Optimization Theory and Applications</i> , 2018 , 178, 950-972	1.6	6
41	Discrete maximal parabolic regularity for Galerkin finite element methods. <i>Numerische Mathematik</i> , 2017 , 135, 923-952	2.2	26
40	Global and Interior Pointwise best Approximation Results for the Gradient of Galerkin Solutions for Parabolic Problems. <i>SIAM Journal on Numerical Analysis</i> , 2017 , 55, 2025-2049	2.4	2
39	Optimal A Priori Error Estimates of Parabolic Optimal Control Problems with a Moving Point Control. <i>Springer INdAM Series</i> , 2017 , 327-356	0.4	
38	A Priori Error Estimates for Three Dimensional Parabolic Optimal Control Problems with Pointwise Control. <i>SIAM Journal on Control and Optimization</i> , 2016 , 54, 2403-2435	1.9	10
37	Optimal Control of a Linear Unsteady Fluid-Structure Interaction Problem. <i>Journal of Optimization Theory and Applications</i> , 2016 , 170, 1-27	1.6	14
36	Finite Element Pointwise Results on Convex Polyhedral Domains. <i>SIAM Journal on Numerical Analysis</i> , 2016 , 54, 561-587	2.4	21

35	Optimal Control of the Undamped Linear Wave Equation with Measure Valued Controls. <i>SIAM Journal on Control and Optimization</i> , 2016 , 54, 1212-1244	1.9	17
34	Pointwise Best Approximation Results for Galerkin Finite Element Solutions of Parabolic Problems. <i>SIAM Journal on Numerical Analysis</i> , 2016 , 54, 1365-1384	2.4	19
33	Sparse initial data identification for parabolic PDE and its finite element approximations. <i>Mathematical Control and Related Fields</i> , 2015 , 5, 377-399	1.5	18
32	Measure Valued Directional Sparsity for Parabolic Optimal Control Problems. <i>SIAM Journal on Control and Optimization</i> , 2014 , 52, 3078-3108	1.9	39
31	New regularity results and improved error estimates for optimal control problems with state constraints. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2014 , 20, 803-822	1	27
30	Third order convergent time discretization for parabolic optimal control problems with control constraints. <i>Computational Optimization and Applications</i> , 2014 , 57, 205-240	1.4	6
29	Efficient numerical realization of discontinuous Galerkin methods for temporal discretization of parabolic problems. <i>Numerische Mathematik</i> , 2013 , 124, 151-182	2.2	21
28	Optimal error estimates for finite element discretization of elliptic optimal control problems with finitely many pointwise state constraints. <i>Computational Optimization and Applications</i> , 2013 , 55, 769-802	1.4	17
27	A Priori Error Analysis for Discretization of Sparse Elliptic Optimal Control Problems in Measure Space. <i>SIAM Journal on Control and Optimization</i> , 2013 , 51, 2788-2808	1.9	32
26	Optimal A Priori Error Estimates of Parabolic Optimal Control Problems with Pointwise Control. <i>SIAM Journal on Numerical Analysis</i> , 2013 , 51, 2797-2821	2.4	31
25	Adaptive Finite Element Methods for Parameter Identification Problems. <i>Contributions in Mathematical and Computational Sciences</i> , 2013 , 31-54		2
24	A priori error estimates for space-time finite element discretization of semilinear parabolic optimal control problems. <i>Numerische Mathematik</i> , 2012 , 120, 345-386	2.2	50
23	Adaptive Space-Time Finite Element Methods for Parabolic Optimization Problems. <i>International Series of Numerical Mathematics</i> , 2012 , 319-348	0.4	2
22	A Posteriori Error Estimation in PDE-constrained Optimization with Pointwise Inequality Constraints. <i>International Series of Numerical Mathematics</i> , 2012 , 349-373	0.4	4
21	A Priori Error Estimates for Space-Time Finite Element Discretization of Parabolic Optimal Control Problems. <i>International Series of Numerical Mathematics</i> , 2012 , 445-466	0.4	
20	Adaptive discretizations for the choice of a Tikhonov regularization parameter in nonlinear inverse problems. <i>Inverse Problems</i> , 2011 , 27, 125008	2.3	13
19	A Priori Error Estimates for Finite Element Discretizations of Parabolic Optimization Problems with Pointwise State Constraints in Time. <i>SIAM Journal on Control and Optimization</i> , 2011 , 49, 1961-1997	1.9	42
18	Semismooth Newton Methods for Optimal Control of the Wave Equation with Control Constraints. <i>SIAM Journal on Control and Optimization</i> , 2011 , 49, 830-858	1.9	31

17	A Priori Error Analysis of the Petrov-Galerkin Crank-Nicolson Scheme for Parabolic Optimal Control Problems. <i>SIAM Journal on Control and Optimization</i> , 2011 , 49, 2183-2211	1.9	26
16	A Priori Mesh Grading for an Elliptic Problem with Dirac Right-Hand Side. <i>SIAM Journal on Numerical Analysis</i> , 2011 , 49, 992-1005	2.4	34
15	Error estimates for the finite element approximation of a semilinear elliptic control problem with state constraints and finite dimensional control space. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2010 , 44, 167-188	1.8	19
14	Adaptive finite element discretization in PDE-based optimization. <i>GAMM Mitteilungen</i> , 2010 , 33, 177-193	1.8	6
13	A posteriori error estimation and adaptivity for elliptic optimal control problems with state constraints. <i>Computational Optimization and Applications</i> , 2009 , 44, 3-25	1.4	53
12	A priori error estimates for elliptic optimal control problems with a bilinear state equation. <i>Journal of Computational and Applied Mathematics</i> , 2009 , 230, 781-802	2.4	37
11	Efficient computation of the Tikhonov regularization parameter by goal-oriented adaptive discretization. <i>Inverse Problems</i> , 2008 , 24, 025025	2.3	33
10	Adaptivity with Dynamic Meshes for Space-Time Finite Element Discretizations of Parabolic Equations. <i>SIAM Journal of Scientific Computing</i> , 2008 , 30, 369-393	2.6	81
9	A Priori Error Estimates for Space-Time Finite Element Discretization of Parabolic Optimal Control Problems Part I: Problems Without Control Constraints. <i>SIAM Journal on Control and Optimization</i> , 2008 , 47, 1150-1177	1.9	106
8	A Priori Error Estimates for Space-Time Finite Element Discretization of Parabolic Optimal Control Problems Part II: Problems with Control Constraints. <i>SIAM Journal on Control and Optimization</i> , 2008 , 47, 1301-1329	1.9	106
7	Efficient numerical solution of parabolic optimization problems by finite element methods. <i>Optimization Methods and Software</i> , 2007 , 22, 813-833	1.3	57
6	Optimal control of the convection-diffusion equation using stabilized finite element methods. <i>Numerische Mathematik</i> , 2007 , 106, 349-367	2.2	113
5	Numerical Sensitivity Analysis for the Quantity of Interest in PDE-Constrained Optimization. <i>SIAM Journal of Scientific Computing</i> , 2007 , 29, 22-48	2.6	12
4	Adaptive Space-Time Finite Element Methods for Parabolic Optimization Problems. <i>SIAM Journal on Control and Optimization</i> , 2007 , 46, 116-142	1.9	91
3	Optimal Control of the Stokes Equations: A Priori Error Analysis for Finite Element Discretization with Postprocessing. <i>SIAM Journal on Numerical Analysis</i> , 2006 , 44, 1903-1920	2.4	41
2	Mesh refinement and numerical sensitivity analysis for parameter calibration of partial differential equations. <i>Journal of Computational Physics</i> , 2005 , 206, 95-110	4.1	46
1	A posteriori error estimation for finite element discretization of parameter identification problems. <i>Numerische Mathematik</i> , 2004 , 96, 435-459	2.2	71