

# Boris Vexler

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/11697073/publications.pdf>

Version: 2024-02-01

54  
papers

1,725  
citations

257101

24  
h-index

276539

41  
g-index

54  
all docs

54  
docs citations

54  
times ranked

587  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fully discrete best-approximation-type estimates in $L^2(\hat{\mathcal{Z}})$ for finite element discretizations of the transient Stokes equations. IMA Journal of Numerical Analysis, 2023, 43, 852-880.	1.5	1
2	New regularity results and finite element error estimates for a class of parabolic optimal control problems with pointwise state constraints. ESAIM - Control, Optimisation and Calculus of Variations, 2021, 27, 4.	0.7	7
3	OPTE special issue on PDE-constrained optimization. Optimization and Engineering, 2021, 22, 1985-1987.	1.3	0
4	Optimal finite element error estimates for an optimal control problem governed by the wave equation with controls of bounded variation. IMA Journal of Numerical Analysis, 2020, , .	1.5	4
5	Global and Local Pointwise Error Estimates for Finite Element Approximations to the Stokes Problem on Convex Polyhedra. SIAM Journal on Numerical Analysis, 2020, 58, 1531-1555.	1.1	3
6	Numerical analysis of sparse initial data identification for parabolic problems. ESAIM: Mathematical Modelling and Numerical Analysis, 2020, 54, 1139-1180.	0.8	9
7	Error Estimates for Space-Time Discretization of Parabolic Time-Optimal Control Problems with Bang-Bang Controls. SIAM Journal on Control and Optimization, 2019, 57, 1730-1756.	1.1	9
8	A Priori Error Estimates for Space-Time Finite Element Discretization of Parabolic Time-Optimal Control Problems. SIAM Journal on Control and Optimization, 2019, 57, 129-162.	1.1	4
9	On a finite element method for measure-valued optimal control problems governed by the 1D generalized wave equation. Comptes Rendus Mathematique, 2018, 356, 523-531.	0.1	0
10	Optimal error estimates for fully discrete Galerkin approximations of semilinear parabolic equations. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 2307-2325.	0.8	12
11	Optimization of Fishing Strategies in Space and Time as a Non-convex Optimal Control Problem. Journal of Optimization Theory and Applications, 2018, 178, 950-972.	0.8	9
12	Discrete Maximal Parabolic Regularity for Galerkin Finite Element Methods for Nonautonomous Parabolic Problems. SIAM Journal on Numerical Analysis, 2018, 56, 2178-2202.	1.1	7
13	Finite element error analysis for measure-valued optimal control problems governed by a 1D wave equation with variable coefficients. Mathematical Control and Related Fields, 2018, 8, 411-449.	0.6	9
14	Discrete maximal parabolic regularity for Galerkin finite element methods. Numerische Mathematik, 2017, 135, 923-952.	0.9	31
15	Global and Interior Pointwise best Approximation Results for the Gradient of Galerkin Solutions for Parabolic Problems. SIAM Journal on Numerical Analysis, 2017, 55, 2025-2049.	1.1	3
16	Optimal A Priori Error Estimates of Parabolic Optimal Control Problems with a Moving Point Control. Springer INdAM Series, 2017, , 327-356.	0.4	0
17	Optimal Control of the Undamped Linear Wave Equation with Measure Valued Controls. SIAM Journal on Control and Optimization, 2016, 54, 1212-1244.	1.1	23
18	Pointwise Best Approximation Results for Galerkin Finite Element Solutions of Parabolic Problems. SIAM Journal on Numerical Analysis, 2016, 54, 1365-1384.	1.1	24

#	ARTICLE	IF	CITATIONS
19	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.	1.1	11
20	Optimal Control of a Linear Unsteady Fluid-Structure Interaction Problem. <i>Journal of Optimization Theory and Applications</i> , 2016, 170, 1-27.	0.8	17
21	Finite Element Pointwise Results on Convex Polyhedral Domains. <i>SIAM Journal on Numerical Analysis</i> , 2016, 54, 561-587.	1.1	25
22	Sparse initial data identification for parabolic PDE and its finite element approximations. <i>Mathematical Control and Related Fields</i> , 2015, 5, 377-399.	0.6	31
23	Measure Valued Directional Sparsity for Parabolic Optimal Control Problems. <i>SIAM Journal on Control and Optimization</i> , 2014, 52, 3078-3108.	1.1	49
24	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.	0.7	33
25	Third order convergent time discretization for parabolic optimal control problems with control constraints. <i>Computational Optimization and Applications</i> , 2014, 57, 205-240.	0.9	7
26	Efficient numerical realization of discontinuous Galerkin methods for temporal discretization of parabolic problems. <i>Numerische Mathematik</i> , 2013, 124, 151-182.	0.9	24
27	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.	0.9	17
28	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.	1.1	38
29	Optimal A Priori Error Estimates of Parabolic Optimal Control Problems with Pointwise Control. <i>SIAM Journal on Numerical Analysis</i> , 2013, 51, 2797-2821.	1.1	36
30	Adaptive Finite Element Methods for Parameter Identification Problems. <i>Contributions in Mathematical and Computational Sciences</i> , 2013, , 31-54.	0.3	3
31	A priori error estimates for space-time finite element discretization of semilinear parabolic optimal control problems. <i>Numerische Mathematik</i> , 2012, 120, 345-386.	0.9	60
32	Adaptive Space-Time Finite Element Methods for Parabolic Optimization Problems. <i>International Series of Numerical Mathematics</i> , 2012, , 319-348.	1.0	2
33	A Posteriori Error Estimation in PDE-constrained Optimization with Pointwise Inequality Constraints. <i>International Series of Numerical Mathematics</i> , 2012, , 349-373.	1.0	5
34	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.	1.0	3
35	Adaptive discretizations for the choice of a Tikhonov regularization parameter in nonlinear inverse problems. <i>Inverse Problems</i> , 2011, 27, 125008.	1.0	20
36	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.	1.1	48

#	ARTICLE	IF	CITATIONS
37	Semismooth Newton Methods for Optimal Control of the Wave Equation with Control Constraints. SIAM Journal on Control and Optimization, 2011, 49, 830-858.	1.1	40
38	A Priori Error Analysis of the Petrov-Galerkin Crank-Nicolson Scheme for Parabolic Optimal Control Problems. SIAM Journal on Control and Optimization, 2011, 49, 2183-2211.	1.1	35
39	A Priori Mesh Grading for an Elliptic Problem with Dirac Right-Hand Side. SIAM Journal on Numerical Analysis, 2011, 49, 992-1005.	1.1	41
40	Adaptive finite element discretization in PDE-based optimization. GAMM Mitteilungen, 2010, 33, 177-193.	2.7	7
41	Error estimates for the finite element approximation of a semilinear elliptic control problem with state constraints and finite dimensional control space. ESAIM: Mathematical Modelling and Numerical Analysis, 2010, 44, 167-188.	0.8	21
42	A posteriori error estimation and adaptivity for elliptic optimal control problems with state constraints. Computational Optimization and Applications, 2009, 44, 3-25.	0.9	57
43	A priori error estimates for elliptic optimal control problems with a bilinear state equation. Journal of Computational and Applied Mathematics, 2009, 230, 781-802.	1.1	45
44	Efficient computation of the Tikhonov regularization parameter by goal-oriented adaptive discretization. Inverse Problems, 2008, 24, 025025.	1.0	36
45	Adaptivity with Dynamic Meshes for Space-Time Finite Element Discretizations of Parabolic Equations. SIAM Journal of Scientific Computing, 2008, 30, 369-393.	1.3	103
46	A Priori Error Estimates for Space-Time Finite Element Discretization of Parabolic Optimal Control Problems Part I: Problems Without Control Constraints. SIAM Journal on Control and Optimization, 2008, 47, 1150-1177.	1.1	129
47	A Priori Error Estimates for Space-Time Finite Element Discretization of Parabolic Optimal Control Problems Part II: Problems with Control Constraints. SIAM Journal on Control and Optimization, 2008, 47, 1301-1329.	1.1	128
48	Numerical Sensitivity Analysis for the Quantity of Interest in PDE-Constrained Optimization. SIAM Journal of Scientific Computing, 2007, 29, 22-48.	1.3	14
49	Adaptive Space-Time Finite Element Methods for Parabolic Optimization Problems. SIAM Journal on Control and Optimization, 2007, 46, 116-142.	1.1	112
50	Efficient numerical solution of parabolic optimization problems by finite element methods. Optimization Methods and Software, 2007, 22, 813-833.	1.6	63
51	Optimal control of the convection-diffusion equation using stabilized finite element methods. Numerische Mathematik, 2007, 106, 349-367.	0.9	131
52	Optimal Control of the Stokes Equations: A Priori Error Analysis for Finite Element Discretization with Postprocessing. SIAM Journal on Numerical Analysis, 2006, 44, 1903-1920.	1.1	45
53	Mesh refinement and numerical sensitivity analysis for parameter calibration of partial differential equations. Journal of Computational Physics, 2005, 206, 95-110.	1.9	51
54	A posteriori error estimation for finite element discretization of parameter identification problems. Numerische Mathematik, 2004, 96, 435-459.	0.9	83