Fredi Tröltzsch

List of Publications by Year in descending order

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62 papers 2,299 citations

304368 22 h-index 223531 46 g-index

66 all docs

66
docs citations

66 times ranked 712 citing authors

#	Article	IF	CITATIONS
1	Stability for Semilinear Parabolic Optimal Control Problems with Respect to Initial Data. Applied Mathematics and Optimization, 2022, 86, .	0.8	2
2	Sparse optimal control of a phase field system with singular potentials arising in the modeling of tumor growth. ESAIM - Control, Optimisation and Calculus of Variations, 2021, 27, S26.	0.7	7
3	Unstructured Space-Time Finite Element Methods for Optimal Control of Parabolic Equations. SIAM Journal of Scientific Computing, 2021, 43, A744-A771.	1.3	14
4	Sparse optimal control for a semilinear heat equation with mixed control-state constraints – regularity of Lagrange multipliers. ESAIM - Control, Optimisation and Calculus of Variations, 2021, 27, 2.	0.7	2
5	First and second order optimality conditions for the control of Fokker-Planck equations. ESAIM - Control, Optimisation and Calculus of Variations, 2021, 27, 15.	0.7	5
6	Exponential Stability for the Schlögl System by Pyragas Feedback. Vietnam Journal of Mathematics, 2020, 48, 769-790.	0.4	1
7	Sparse optimal control for the heat equation with mixed control-state constraints. Mathematical Control and Related Fields, 2020, 10, 471-491.	0.6	1
8	State-constrained semilinear elliptic optimization problems with unrestricted sparse controls. Mathematical Control and Related Fields, 2020, 10, 527-546.	0.6	3
9	Optimal time delays in a class of reaction-diffusion equations. Optimization, 2019, 68, 255-278.	1.0	1
10	Optimal Control of Semiconductor Melts by Traveling Magnetic Fields. Vietnam Journal of Mathematics, 2019, 47, 793-812.	0.4	2
11	Optimal control of a class of reaction–diffusion systems. Computational Optimization and Applications, 2018, 70, 677-707.	0.9	12
12	Measure Control of a Semilinear Parabolic Equation with a Nonlocal Time Delay. SIAM Journal on Control and Optimization, 2018, 56, 4434-4460.	1.1	1
13	On the switching behavior of sparse optimal controls for the one-dimensional heat equation. Mathematical Control and Related Fields, 2018, 8, 135-153.	0.6	3
14	Preface: A tribute to professor Eduardo Casas on his 60th birthday. Mathematical Control and Related Fields, 2018, 8, i-ii.	0.6	0
15	Optimization of nonlocal time-delayed feedback controllers. Computational Optimization and Applications, 2016, 64, 265-294.	0.9	10
16	Optimal control of low-frequency electromagnetic fields in multiply connected conductors. Optimization, 2016, 65, 1651-1673.	1.0	7
17	Second-Order Optimality Conditions for Weak and Strong Local Solutions of Parabolic Optimal Control Problems. Vietnam Journal of Mathematics, 2016, 44, 181-202.	0.4	21
18	Analytical, Optimal, and Sparse Optimal Control of Traveling Wave Solutions to Reaction-Diffusion Systems. Understanding Complex Systems, 2016, , 189-210.	0.3	14

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19	Optimal control of magnetic fields in flow measurement. Discrete and Continuous Dynamical Systems - Series S, 2015, 8, 579-605.	0.6	10
20	Second Order Optimality Conditions and Their Role in PDE Control. Deutsche Mathematiker Vereinigung Jahresbericht, 2015, 117, 3-44.	0.4	55
21	Second Order and Stability Analysis for Optimal Sparse Control of the FitzHugh–Nagumo Equation. SIAM Journal on Control and Optimization, 2015, 53, 2168-2202.	1.1	38
22	An adaptive numerical method for semi-infinite elliptic control problems based on error estimates. Optimization Methods and Software, 2015, 30, 492-515.	1.6	4
23	Boundary feedback stabilization of the Schlögl system. Automatica, 2015, 51, 192-199.	3.0	17
24	A coupled Maxwell integrodifferential model for magnetization processes. Mathematische Nachrichten, 2014, 287, 432-452.	0.4	13
25	On Two Optimal Control Problems for Magnetic Fields. Computational Methods in Applied Mathematics, 2014, 14, 555-573.	0.4	19
26	Second-Order and Stability Analysis for State-Constrained Elliptic Optimal Control Problems with Sparse Controls. SIAM Journal on Control and Optimization, 2014, 52, 1010-1033.	1.1	16
27	On some optimal control problems for electrical circuits. International Journal of Circuit Theory and Applications, 2014, 42, 808-830.	1.3	6
28	Proper orthogonal decomposition in sparse optimal control of some reaction diffusion equations using model predictive control. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 883-884.	0.2	3
29	On the optimal control of the SchlÃ \P gl-model. Computational Optimization and Applications, 2013, 56, 153-185.	0.9	46
30	Sparse Optimal Control of the Schlögl and FitzHugh–Nagumo Systems. Computational Methods in Applied Mathematics, 2013, 13, 415-442.	0.4	52
31	<i>A posteriori</i> error estimation for semilinear parabolic optimal control problems with application to model reduction by POD. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 555-581.	0.8	22
32	Second Order Analysis for Optimal Control Problems: Improving Results Expected From Abstract Theory. SIAM Journal on Optimization, 2012, 22, 261-279.	1.2	63
33	A general theorem on error estimates with application to a quasilinear elliptic optimal control problem. Computational Optimization and Applications, 2012, 53, 173-206.	0.9	26
34	Numerical Analysis of State-constrained Optimal Control Problems for PDEs. International Series of Numerical Mathematics, 2012, , 467-482.	1.0	3
35	On linear-quadratic elliptic control problems of semi-infinite type. Applicable Analysis, 2011, 90, 1047-1074.	0.6	13
36	Optimal Control of Three-Dimensional State-Constrained Induction Heating Problems with Nonlocal Radiation Effects. SIAM Journal on Control and Optimization, 2011, 49, 1707-1736.	1.1	24

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37	Some aspects of reachability for parabolic boundary control problems withÂcontrol constraints. Computational Optimization and Applications, 2011, 50, 75-110.	0.9	22
38	Numerical analysis of some optimal control problems governed by a class of quasilinear elliptic equations. ESAIM - Control, Optimisation and Calculus of Variations, 2011, 17, 771-800.	0.7	14
39	Discrete concepts versus error analysis in PDEâ€constrained optimization. GAMM Mitteilungen, 2010, 33, 148-162.	2.7	24
40	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
41	Recent advances in the analysis of pointwise state-constrained elliptic optimal control problems. ESAIM - Control, Optimisation and Calculus of Variations, 2010, 16, 581-600.	0.7	17
42	Supplementary results on partial differential equations. Graduate Studies in Mathematics, 2010, , $355-383$.	0.0	116
43	Error estimates for the finite element discretization of semi-infinite elliptic optimal control problems. Discussiones Mathematicae: Differential Inclusions, Control and Optimization, 2010, 30, 221.	0.2	6
44	On regularization methods for the numerical solution of parabolic control problems with pointwise state constraints. ESAIM - Control, Optimisation and Calculus of Variations, 2009, 15, 426-453.	0.7	20
45	A regularization method for the numerical solution ofÂelliptic boundary control problems with pointwise state constraints. Computational Optimization and Applications, 2009, 42, 43-66.	0.9	26
46	First- and Second-Order Optimality Conditions for a Class of Optimal Control Problems with Quasilinear Elliptic Equations. SIAM Journal on Control and Optimization, 2009, 48, 688-718.	1.1	51
47	The convergence of an interior point method for an elliptic control problem with mixed control-state constraints. Computational Optimization and Applications, 2008, 39, 183-218.	0.9	30
48	Sufficient Second-Order Optimality Conditions for Semilinear Control Problems with Pointwise State Constraints. SIAM Journal on Optimization, 2008, 19, 616-643.	1.2	91
49	Optimal Control of PDEs with Regularized Pointwise State Constraints. Computational Optimization and Applications, 2006, 33, 209-228.	0.9	90
50	Second-order sufficient optimality conditions for the optimal control of Navier-Stokes equations. ESAIM - Control, Optimisation and Calculus of Variations, 2006, 12, 93-119.	0.7	54
51	Error Estimates for the Numerical Approximation of Boundary Semilinear Elliptic Control Problems. Computational Optimization and Applications, 2005, 31, 193-219.	0.9	96
52	Regular Lagrange Multipliers for Control Problems with Mixed Pointwise Control-State Constraints. SIAM Journal on Optimization, 2005, 15, 616-634.	1.2	49
53	Optimale Steuerung partieller Differentialgleichungen. , 2005, , .		107
54	On convergence of a receding horizon method for parabolic boundary control. Optimization Methods and Software, 2004, 19, 201-216.	1.6	3

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55	SUFFICIENT SECOND ORDER OPTIMALITY CONDITIONS FOR A STATE-CONSTRAINED OPTIMAL CONTROL PROBLEM OF A WEAKLY SINGULAR INTEGRAL EQUATION. Numerical Functional Analysis and Optimization, 2002, 23, 173-193.	0.6	4
56	Second-Order Necessary and Sufficient Optimality Conditions for Optimization Problems and Applications to Control Theory. SIAM Journal on Optimization, 2002, 13, 406-431.	1.2	67
57	On an Augmented Lagrangian SQP Method for a Class of Optimal Control Problems in Banach Spaces. Computational Optimization and Applications, 2002, 22, 369-398.	0.9	11
58	Error Estimates for the Numerical Approximation of a Semilinear Elliptic Control Problem. Computational Optimization and Applications, 2002, 23, 201-229.	0.9	209
59	Sufficient Optimality in a Parabolic Control Problem. Applied Optimization, 2002, , 305-316.	0.4	2
60	The SQP method for control constrained optimal control of the Burgers equation. ESAIM - Control, Optimisation and Calculus of Variations, 2001, 6, 649-674.	0.7	23
61	Second Order Sufficient Optimality Conditions for Some State-constrained Control Problems of Semilinear Elliptic Equations. SIAM Journal on Control and Optimization, 2000, 38, 1369-1391.	1.1	62
62	Optimal Control of Semilinear Parabolic Equations with State-Constraints of Bottleneck Type. ESAIM - Control, Optimisation and Calculus of Variations, 1999, 4, 595-608.	0.7	14