

Fredi Trltzsch

List of Publications by Citations

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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.

60
papers

1,812
citations

21
h-index

42
g-index

66
ext. papers

1,996
ext. citations

1.4
avg, IF

5.45
L-index

#	Paper	IF	Citations
60	Optimal Control of Partial Differential Equations. <i>Graduate Studies in Mathematics</i> , 2010 ,	3.5	388
59	Error Estimates for the Numerical Approximation of a Semilinear Elliptic Control Problem. <i>Computational Optimization and Applications</i> , 2002 , 23, 201-229	1.4	164
58	Optimale Steuerung partieller Differentialgleichungen 2005 ,		88
57	Error Estimates for the Numerical Approximation of Boundary Semilinear Elliptic Control Problems. <i>Computational Optimization and Applications</i> , 2005 , 31, 193-219	1.4	81
56	Optimal Control of PDEs with Regularized Pointwise State Constraints. <i>Computational Optimization and Applications</i> , 2006 , 33, 209-228	1.4	77
55	Sufficient Second-Order Optimality Conditions for Semilinear Control Problems with Pointwise State Constraints. <i>SIAM Journal on Optimization</i> , 2008 , 19, 616-643	2	75
54	Supplementary results on partial differential equations. <i>Graduate Studies in Mathematics</i> , 2010 , 355-383	3.5	71
53	Second-Order Necessary and Sufficient Optimality Conditions for Optimization Problems and Applications to Control Theory. <i>SIAM Journal on Optimization</i> , 2002 , 13, 406-431	2	54
52	Second Order Sufficient Optimality Conditions for Some State-constrained Control Problems of Semilinear Elliptic Equations. <i>SIAM Journal on Control and Optimization</i> , 2000 , 38, 1369-1391	1.9	51
51	Second-order sufficient optimality conditions for the optimal control of Navier-Stokes equations. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2006 , 12, 93-119	1	48
50	Regular Lagrange Multipliers for Control Problems with Mixed Pointwise Control-State Constraints. <i>SIAM Journal on Optimization</i> , 2005 , 15, 616-634	2	46
49	Sparse Optimal Control of the Schlögl and FitzHugh-Nagumo Systems. <i>Computational Methods in Applied Mathematics</i> , 2013 , 13, 415-442	1.2	44
48	Second Order Analysis for Optimal Control Problems: Improving Results Expected From Abstract Theory. <i>SIAM Journal on Optimization</i> , 2012 , 22, 261-279	2	42
47	Second Order Optimality Conditions and Their Role in PDE Control. <i>Deutsche Mathematiker Vereinigung Jahresbericht</i> , 2015 , 117, 3-44	2.2	41
46	On the optimal control of the Schlögl-model. <i>Computational Optimization and Applications</i> , 2013 , 56, 153-185	1.4	41
45	First- and Second-Order Optimality Conditions for a Class of Optimal Control Problems with Quasilinear Elliptic Equations. <i>SIAM Journal on Control and Optimization</i> , 2009 , 48, 688-718	1.9	41
44	Second Order and Stability Analysis for Optimal Sparse Control of the FitzHugh-Nagumo Equation. <i>SIAM Journal on Control and Optimization</i> , 2015 , 53, 2168-2202	1.9	30

43	The convergence of an interior point method for an elliptic control problem with mixed control-state constraints. <i>Computational Optimization and Applications</i> , 2008 , 39, 183-218	1.4	28
42	A regularization method for the numerical solution of elliptic boundary control problems with pointwise state constraints. <i>Computational Optimization and Applications</i> , 2009 , 42, 43-66	1.4	24
41	A general theorem on error estimates with application to a quasilinear elliptic optimal control problem. <i>Computational Optimization and Applications</i> , 2012 , 53, 173-206	1.4	23
40	Discrete concepts versus error analysis in PDE-constrained optimization. <i>GAMM Mitteilungen</i> , 2010 , 33, 148-162	1.8	23
39	A posteriori error estimation for semilinear parabolic optimal control problems with application to model reduction by POD. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2013 , 47, 555-581	1.8	21
38	Optimal Control of Three-Dimensional State-Constrained Induction Heating Problems with Nonlocal Radiation Effects. <i>SIAM Journal on Control and Optimization</i> , 2011 , 49, 1707-1736	1.9	21
37	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
36	The SQP method for control constrained optimal control of the Burgers equation. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2001 , 6, 649-674	1	19
35	On Two Optimal Control Problems for Magnetic Fields. <i>Computational Methods in Applied Mathematics</i> , 2014 , 14, 555-573	1.2	18
34	On regularization methods for the numerical solution of parabolic control problems with pointwise state constraints. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2009 , 15, 426-453	1	18
33	Second-Order Optimality Conditions for Weak and Strong Local Solutions of Parabolic Optimal Control Problems. <i>Vietnam Journal of Mathematics</i> , 2016 , 44, 181-202	0.5	16
32	Some aspects of reachability for parabolic boundary control problems with control constraints. <i>Computational Optimization and Applications</i> , 2011 , 50, 75-110	1.4	16
31	Recent advances in the analysis of pointwise state-constrained elliptic optimal control problems. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2010 , 16, 581-600	1	16
30	Boundary feedback stabilization of the Schlögl system. <i>Automatica</i> , 2015 , 51, 192-199	5.7	13
29	On linear-quadratic elliptic control problems of semi-infinite type. <i>Applicable Analysis</i> , 2011 , 90, 1047-1074	1.4	13
28	Optimal Control of Semilinear Parabolic Equations with State-Constraints of Bottleneck Type. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 1999 , 4, 595-608	1	12
27	Second-Order and Stability Analysis for State-Constrained Elliptic Optimal Control Problems with Sparse Controls. <i>SIAM Journal on Control and Optimization</i> , 2014 , 52, 1010-1033	1.9	11
26	A coupled Maxwell integrodifferential model for magnetization processes. <i>Mathematische Nachrichten</i> , 2014 , 287, 432-452	0.8	11

25	Numerical analysis of some optimal control problems governed by a class of quasilinear elliptic equations. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2011 , 17, 771-800	1	11
24	Analytical, Optimal, and Sparse Optimal Control of Traveling Wave Solutions to Reaction-Diffusion Systems. <i>Understanding Complex Systems</i> , 2016 , 189-210	0.4	10
23	Optimization of nonlocal time-delayed feedback controllers. <i>Computational Optimization and Applications</i> , 2016 , 64, 265-294	1.4	10
22	Optimal control of magnetic fields in flow measurement. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2015 , 8, 579-605	2.8	9
21	On an Augmented Lagrangian SQP Method for a Class of Optimal Control Problems in Banach Spaces. <i>Computational Optimization and Applications</i> , 2002 , 22, 369-398	1.4	7
20	Optimal control of a class of reaction-diffusion systems. <i>Computational Optimization and Applications</i> , 2018 , 70, 677-707	1.4	6
19	Optimal control of low-frequency electromagnetic fields in multiply connected conductors. <i>Optimization</i> , 2016 , 65, 1651-1673	1.2	6
18	Error estimates for the finite element discretization of semi-infinite elliptic optimal control problems. <i>Discussiones Mathematicae: Differential Inclusions, Control and Optimization</i> , 2010 , 30, 221	1	6
17	On some optimal control problems for electrical circuits. <i>International Journal of Circuit Theory and Applications</i> , 2014 , 42, 808-830	2	5
16	Unstructured Space-Time Finite Element Methods for Optimal Control of Parabolic Equations. <i>SIAM Journal of Scientific Computing</i> , 2021 , 43, A744-A771	2.6	4
15	An adaptive numerical method for semi-infinite elliptic control problems based on error estimates. <i>Optimization Methods and Software</i> , 2015 , 30, 492-515	1.3	3
14	Proper orthogonal decomposition in sparse optimal control of some reaction diffusion equations using model predictive control. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2014 , 14, 883-884	0.2	3
13	On convergence of a receding horizon method for parabolic boundary control. <i>Optimization Methods and Software</i> , 2004 , 19, 201-216	1.3	3
12	SUFFICIENT SECOND ORDER OPTIMALITY CONDITIONS FOR A STATE-CONSTRAINED OPTIMAL CONTROL PROBLEM OF A WEAKLY SINGULAR INTEGRAL EQUATION. <i>Numerical Functional Analysis and Optimization</i> , 2002 , 23, 173-193	1	3
11	Numerical Analysis of State-constrained Optimal Control Problems for PDEs. <i>International Series of Numerical Mathematics</i> , 2012 , 467-482	0.4	3
10	On the switching behavior of sparse optimal controls for the one-dimensional heat equation. <i>Mathematical Control and Related Fields</i> , 2018 , 8, 135-153	1.5	2
9	State-constrained semilinear elliptic optimization problems with unrestricted sparse controls. <i>Mathematical Control and Related Fields</i> , 2020 , 10, 527-546	1.5	2
8	Sparse optimal control of a phase field system with singular potentials arising in the modeling of tumor growth. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2021 , 27, S26	1	2

7	Sufficient Optimality in a Parabolic Control Problem. <i>Applied Optimization</i> , 2002 , 305-316		2
6	Exponential Stability for the Schrödinger System by Pyragas Feedback. <i>Vietnam Journal of Mathematics</i> , 2020 , 48, 769-790	0.5	1
5	Optimal time delays in a class of reaction-diffusion equations. <i>Optimization</i> , 2019 , 68, 255-278	1.2	1
4	Sparse optimal control for a semilinear heat equation with mixed control-state constraints \square regularity of Lagrange multipliers. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2021 , 27, 2	1	1
3	First and second order optimality conditions for the control of Fokker-Planck equations. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2021 , 27, 15	1	1
2	Optimal Control of Semiconductor Melts by Traveling Magnetic Fields. <i>Vietnam Journal of Mathematics</i> , 2019 , 47, 793-812	0.5	
1	Measure Control of a Semilinear Parabolic Equation with a Nonlocal Time Delay. <i>SIAM Journal on Control and Optimization</i> , 2018 , 56, 4434-4460	1.9	