Martin Gugat

List of Publications by Year in Descending Order

102 papers	1,312 citations	20 h-index	31 g-index
110 ext. papers	1,504 ext. citations	1.3 avg, IF	5.1 L-index

#	Paper	IF	Citations
102	On the turnpike property with interior decay for optimal control problems. *Mathematics of Control, Signals, and Systems*, **2021**, 33, 237-258	1.3	0
101	The Finite-Time Turnpike Phenomenon for Optimal Control Problems: Stabilization by Non-smooth Tracking Terms. *SEMA SIMAI Springer Series*, **2021**, 17-41	0.2	0
100	Exponential Stability for the Schl□gl System by Pyragas Feedback. *Vietnam Journal of Mathematics*, **2020**, 48, 769-790	0.5	1
99	A New Model for Transient Flow in Gas Transportation Networks. *Industrial and Applied Mathematics*, **2020**, 147-156	0.3	
98	Closed loop control of gas flow in a pipe: stability for a transient model. *Automatisierungstechnik*, **2020**, 68, 1001-1010	0.8	0
97	Joint Model of Probabilistic-Robust (Probust) Constraints Applied to Gas Network Optimization. *Vietnam Journal of Mathematics*, **2020**, 49, 1097	0.5	2
96	Optimal Neumann Boundary Control of a Vibrating String with Uncertain Initial Data and Probabilistic Terminal Constraints. *SIAM Journal on Control and Optimization*, **2020**, 58, 2288-2311	1.9	5
95	On the limits of stabilizability for networks of strings. *Systems and Control Letters*, **2019**, 131, 104494	2.4	5
94	On the Turnpike Phenomenon for Optimal Boundary Control Problems with Hyperbolic Systems. *SIAM Journal on Control and Optimization*, **2019**, 57, 264-289	1.9	18
93	Boundary Feedback Stabilization of the Isothermal Euler Equations with Uncertain Boundary Data. *SIAM Journal on Control and Optimization*, **2018**, 56, 1491-1507	1.9	4
92	Lipschitz solutions of initial boundary value problems for balance laws. *Mathematical Models and Methods in Applied Sciences*, **2018**, 28, 921-951	3.5	2
91	MIP-based instantaneous control of mixed-integer PDE-constrained gas transport problems. *Computational Optimization and Applications*, **2018**, 70, 267-294	1.4	25
90	Towards simulation based mixed-integer optimization with differential equations. *Networks*, **2018**, 72, 60-83	1.6	9
89	Networks of pipelines for gas with nonconstant compressibility factor: stationary states. *Computational and Applied Mathematics*, **2018**, 37, 1066-1097		8
88	Transient Flow in Gas Networks: Traveling waves. *International Journal of Applied Mathematics and Computer Science*, **2018**, 28, 341-348	1.7	4
87	On the Relaxation Approximation for (2times 2) Hyperbolic Balance Laws. *Springer Proceedings in Mathematics and Statistics*, **2018**, 651-663	0.2	
86	Dynamic boundary control games with networks of strings. *ESAIM - Control, Optimisation and Calculus of Variations*, **2018**, 24, 1789-1813	1	2

85	Stationary Gas Networks with Compressor Control and Random Loads: Optimization with Probabilistic Constraints. *Mathematical Problems in Engineering*, **2018**, 2018, 1-17	1.1	3
84	Boundary stabilization of quasilinear hyperbolic systems of balance laws: exponential decay for small source terms. *Journal of Evolution Equations*, **2018**, 18, 1471-1500	1.2	9
83	Lipschitz continuity of the value function in mixed-integer optimal control problems. *Mathematics of Control, Signals, and Systems*, **2017**, 29, 1	1.3	4
82	The isothermal Euler equations for ideal gas with source term: Product solutions, flow reversal and no blow up. *Journal of Mathematical Analysis and Applications*, **2017**, 454, 439-452	1.1	11
81	Time Delay in Optimal Control Loops for Wave Equations. *ESAIM - Control, Optimisation and Calculus of Variations*, **2017**, 23, 13-37	1	1
80	Neumann boundary feedback stabilization for a nonlinear wave equation: A strict H^2-lyapunov function. *Mathematical Control and Related Fields*, **2017**, 7, 419-448	1.5	13
79	Coupling conditions for the transition from supersonic to subsonic fluid states. *Networks and Heterogeneous Media*, **2017**, 12, 371-380	1.6	4
78	Exact penalization of terminal constraints for optimal control problems. *Optimal Control Applications and Methods*, **2016**, 37, 1329-1354	1.7	8
77	Optimal Neumann control for the 1D wave equation: Finite horizon, infinite horizon, boundary tracking terms and the turnpike property. *Systems and Control Letters*, **2016**, 90, 61-70	2.4	31
76	Exact Boundary Controllability for Free Traffic Flow with Lipschitz Continuous State. *Mathematical Problems in Engineering*, **2016**, 2016, 1-11	1.1	4
75	Exponential Stabilization of the Wave Equation by Dirichlet Integral Feedback. *SIAM Journal on Control and Optimization*, **2015**, 53, 526-546	1.9	5
74	Optimal Boundary Control and Boundary Stabilization of Hyperbolic Systems. *Springer Briefs in Electrical and Computer Engineering*, **2015**,	0.4	10
73	Boundary Stabilization. *Springer Briefs in Electrical and Computer Engineering*, **2015**, 69-87	0.4	
72	Exact Controllability. *Springer Briefs in Electrical and Computer Engineering*, **2015**, 29-46	0.4	
71	Boundary feedback stabilization of the Schl□gl system. *Automatica*, **2015**, 51, 192-199	5.7	13
70	Norm-minimal Neumann boundary control of the wave equation. *Arabian Journal of Mathematics*, **2015**, 4, 41-58	0.8	5
69	Stationary states in gas networks. *Networks and Heterogeneous Media*, **2015**, 10, 295-320	1.6	26
68	Analysis of a system of nonlocal conservation laws for multi-commodity flow on networks. *Networks and Heterogeneous Media*, **2015**, 10, 749-785	1.6	18

67	Optimal Exact Control. *Springer Briefs in Electrical and Computer Engineering*, **2015**, 47-67	0.4	
66	Systems governed by the wave equation. *Springer Briefs in Electrical and Computer Engineering*, **2015**, 3-28	0.4	
65	Nonlinear Systems. *Springer Briefs in Electrical and Computer Engineering*, **2015**, 89-125	0.4	
64	Boundary feedback stabilization of the telegraph equation: Decay rates for vanishing damping term. *Systems and Control Letters*, **2014**, 66, 72-84	2.4	19
63	The sensitivity of optimal states to time delay. *Proceedings in Applied Mathematics and Mechanics*, **2014**, 14, 775-776	0.2	5
62	Stabilization of Networked Hyperbolic Systems with Boundary Feedback. *International Series of Numerical Mathematics*, **2014**, 487-504	0.4	6
61	Infinite Penalization for Optimal Control Problems: An infinite-dimensional optimization method for constrained optimization problems. *Proceedings in Applied Mathematics and Mechanics*, **2013**, 13, 587-588	0.2	1
60	Efficient Numerical Evaluation of Semianalytical Models for Squeeze Film Damping for Torsion Mirrors. *Journal of Nanomechanics & Micromechanics*, **2013**, 3, 06013001		1
59	A smoothed penalty iteration for state constrained optimal control problems for partial differential equations. *Optimization*, **2013**, 62, 379-395	1.2	3
58	A note on the approximation of Dirichlet boundary control problems for the wave equation on curved domains. *Applicable Analysis*, **2013**, 92, 2200-2214	0.8	6
57	Stabilization of the Gas Flow in Star-Shaped Networks by Feedback Controls with Varying Delay. *International Federation for Information Processing*, **2013**, 255-265		5
56	Feedback stabilization of quasilinear hyperbolic systems with varying delays **2012**,		1
55	Closed Form Representations of Some Series in Darling Model for Squeeze Film Damping with a Rectangular Plate. *Applied Sciences (Switzerland)*, **2012**, 2, 479-484	2.6	1
54	H 2-stabilization of the Isothermal Euler equations: a Lyapunov function approach. *Chinese Annals of Mathematics Series B*, **2012**, 33, 479-500	0.4	20
53	Contamination Source Determination in Water Distribution Networks. *SIAM Journal on Applied Mathematics*, **2012**, 72, 1772-1791	1.8	15
52	On the relaxation approximation of boundary control of the isothermal Euler equations. *International Journal of Control*, **2012**, 85, 1766-1778	1.5	4
51	Well-posedness of Networked Hyperbolic Systems of Balance Laws. *International Series of Numerical Mathematics*, **2012**, 123-146	0.4	13
50	Gas Flow in Fan-Shaped Networks: Classical Solutions and Feedback Stabilization. *SIAM Journal on Control and Optimization*, **2011**, 49, 2101-2117	1.9	56

49	Optimal boundary control of the wave equation with pointwise control constraints. *Computational Optimization and Applications*, **2011**, 49, 123-147	1.4	8
48	Flow control in gas networks: Exact controllability to a given demand. *Mathematical Methods in the Applied Sciences*, **2011**, 34, 745-757	2.3	42
47	An example for the switching delay feedback stabilization of an infinite dimensional system: The boundary stabilization of a string. *Systems and Control Letters*, **2011**, 60, 226-233	2.4	20
46	Existence of classical solutions and feedback stabilization for the flow in gas networks. *ESAIM - Control, Optimisation and Calculus of Variations*, **2011**, 17, 28-51	1	71
45	Time-delayed boundary feedback stabilization of the isothermal Euler equations with friction. *Mathematical Control and Related Fields*, **2011**, 1, 469-491	1.5	27
44	A strict H^1-Lyapunov function and feedback stabilization for the isothermal Euler equations with friction. *Numerical Algebra, Control and Optimization*, **2011**, 1, 225-244	1.7	14
43	The smoothed-penalty algorithm for state constrained optimal control problems for partial differential equations. *Optimization Methods and Software*, **2010**, 25, 573-599	1.3	13
42	Approximation of Semigroups and Related Operator Functions by Resolvent Series. *SIAM Journal on Numerical Analysis*, **2010**, 48, 1826-1845	2.4	10
41	Penalty Techniques for State Constrained Optimal Control Problems with the Wave Equation. *SIAM Journal on Control and Optimization*, **2010**, 48, 3026-3051	1.9	20
40	Stabilizing a vibrating string by time delay **2010**,		9
39	Boundary feedback stabilization by time delay for one-dimensional wave equations. *IMA Journal of Mathematical Control and Information*, **2010**, 27, 189-203	1.1	37
38	Stars of vibrating strings: Switching boundary feedback stabilization. *Networks and Heterogeneous Media*, **2010**, 5, 299-314	1.6	30
37	Classical solutions and feedback stabilization for the gas flow in a sequence of pipes. *Networks and Heterogeneous Media*, **2010**, 5, 691-709	1.6	59
36	Optimal distributed control of the wave equation subject to state constraints. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2009**, 89, 420-444	1	15
35	Global boundary controllability of the Saint-Venant system for sloped canals with friction. *Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire*, **2009**, 26, 257-270	1.6	32
34	Lavrentiev Prox-regularization Methods for Optimal Control Problems with Pointwise State Constraints. *International Series of Numerical Mathematics*, **2009**, 139-153	0.4	1
33	L∞Norm minimal control of the wave equation: on the weakness of the bang-bang principle. *ESAIM - Control, Optimisation and Calculus of Variations*, **2008**, 14, 254-283	1	30
32	Optimal switching boundary control of a string to rest in finite time. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2008**, 88, 283-305	1	25

31	Weber problems with mixed distances and regional demand. *Mathematical Methods of Operations Research*, **2007**, 66, 419-449	1	13
30	Optimal Boundary Control in Flood Management. *International Series of Numerical Mathematics*, **2007**, 69-94	0.4	
29	Optimal boundary feedback stabilization of a string with moving boundary. *IMA Journal of Mathematical Control and Information*, **2007**, 25, 111-121	1.1	18
28	Optimal Energy Control in Finite Time by varying the Length of the String. *SIAM Journal on Control and Optimization*, **2007**, 46, 1705-1725	1.9	14
27	Optimal boundary control of a string to rest in finite time with continuous state. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2006**, 86, 134-150	1	13
26	Conservation law constrained optimization based upon Front-Tracking. *ESAIM: Mathematical Modelling and Numerical Analysis*, **2006**, 40, 939-960	1.8	7
25	L1Optimal Boundary Control of a String to Rest in Finite Time **2006**, 149-162		1
24	Lp-Optimal Boundary Control for the Wave Equation. *SIAM Journal on Control and Optimization*, **2005**, 44, 49-74	1.9	32
23	Optimal Control for Traffic Flow Networks. *Journal of Optimization Theory and Applications*, **2005**, 126, 589-616	1.6	86
22	Nodal Control of Conservation Laws On Networks. *Lecture Notes in Pure and Applied Mathematics*, **2005**, 201-215		4
21	Global controllability between steady supercritical flows in channel networks. *Mathematical Methods in the Applied Sciences*, **2004**, 27, 781-802	2.3	37
20	Global boundary controllability of the deSt.Venant equations between steady states. *Annales De LInstitut Henri Poincare (C) Analyse Non Lineaire*, **2003**, 20, 1-11	1.6	64
19	Boundary Controllability between Sub- and Supercritical Flow. *SIAM Journal on Control and Optimization*, **2003**, 42, 1056-1070	1.9	15
18	Regularization of L Optimal Control Problems for Distributed Parameter Systems. *Computational Optimization and Applications*, **2002**, 22, 151-192	1.4	9
17	Analytic Solutions of LOptimal Control Problems for the Wave Equation. *Journal of Optimization Theory and Applications*, **2002**, 114, 397-421	1.6	20
16	Controllability of a slowly rotating Timoshenko beam. *ESAIM - Control, Optimisation and Calculus of Variations*, **2001**, 6, 333-360	1	15
15	Modelling, Stabilization, and Control of Flow in Networks of Open Channels **2001**, 251-270		15
14	A Newton method for the computation of time-optimal boundary controls of one-dimensional vibrating systems. *Journal of Computational and Applied Mathematics*, **2000**, 114, 103-119	2.4	7

13	Error bounds for infinite systems of convex inequalities without Slater's condition. *Mathematical Programming*, **2000**, 88, 255-275	2.1	4
12	Convex Semi-Infinite Parametric Programming: Uniform Convergence of the Optimal Value Functions of Discretized Problems. *Journal of Optimization Theory and Applications*, **1999**, 101, 191-201	1.6	2
11	A parametric view on the Mangasarian-Fromovitz constraint qualification. *Mathematical Programming*, **1999**, 85, 643-653	2.1	3
10	Prox-Regularization Methods for Generalized Fractional Programming. *Journal of Optimization Theory and Applications*, **1998**, 99, 691-722	1.6	17
9	Semi-infinite terminal problems: a newton type method. *Optimization*, **1998**, 44, 25-48	1.2	2
8	Parametric Disjunctive Programming: One-Sided Differentiability of the Value Function. *Journal of Optimization Theory and Applications*, **1997**, 92, 285-310	1.6	6
7	A Fast Algorithm for a Class of Generalized Fractional Programs. *Management Science*, **1996**, 42, 1493-1499	3.9	21
6	The Newton differential correction algorithm for rational Chebyshev approximation with constrained denominators. *Numerical Algorithms*, **1996**, 13, 107-122	2.1	4
5	One-sided derivatives for the value function in convex parametric programming. *Optimization*, **1994**, 28, 301-314	1.2	9
4	Nonlinear elasticity: existence theory under subdifferential constaints. *Applicable Analysis*, **1993**, 49, 93-99	0.8	
3	Optimization under functional constraints (semi-infinite programming) and applications. *Lecture Notes in Economics and Mathematical Systems*, **1992**, 90-126	0.4	
2	Probabilistic constrained optimization on flow networks. *Optimization and Engineering*,1	2.1	1
1	Transient gas pipeline flow: analytical examples, numerical simulation and a comparison to the quasi-static approach. *Optimization and Engineering*,1	2.1	