

# Martin Gugat

## 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.

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	Optimal Control for Traffic Flow Networks. <i>Journal of Optimization Theory and Applications</i> , <b>2005</b> , 126, 589-616	1.6	86
101	Existence of classical solutions and feedback stabilization for the flow in gas networks. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , <b>2011</b> , 17, 28-51	1	71
100	Global boundary controllability of the de Saint-Venant equations between steady states. <i>Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire</i> , <b>2003</b> , 20, 1-11	1.6	64
99	Classical solutions and feedback stabilization for the gas flow in a sequence of pipes. <i>Networks and Heterogeneous Media</i> , <b>2010</b> , 5, 691-709	1.6	59
98	Gas Flow in Fan-Shaped Networks: Classical Solutions and Feedback Stabilization. <i>SIAM Journal on Control and Optimization</i> , <b>2011</b> , 49, 2101-2117	1.9	56
97	Flow control in gas networks: Exact controllability to a given demand. <i>Mathematical Methods in the Applied Sciences</i> , <b>2011</b> , 34, 745-757	2.3	42
96	Boundary feedback stabilization by time delay for one-dimensional wave equations. <i>IMA Journal of Mathematical Control and Information</i> , <b>2010</b> , 27, 189-203	1.1	37
95	Global controllability between steady supercritical flows in channel networks. <i>Mathematical Methods in the Applied Sciences</i> , <b>2004</b> , 27, 781-802	2.3	37
94	Global boundary controllability of the Saint-Venant system for sloped canals with friction. <i>Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire</i> , <b>2009</b> , 26, 257-270	1.6	32
93	Lp-Optimal Boundary Control for the Wave Equation. <i>SIAM Journal on Control and Optimization</i> , <b>2005</b> , 44, 49-74	1.9	32
92	Optimal Neumann control for the 1D wave equation: Finite horizon, infinite horizon, boundary tracking terms and the turnpike property. <i>Systems and Control Letters</i> , <b>2016</b> , 90, 61-70	2.4	31
91	L <sup>∞</sup> Norm minimal control of the wave equation: on the weakness of the bang-bang principle. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , <b>2008</b> , 14, 254-283	1	30
90	Stars of vibrating strings: Switching boundary feedback stabilization. <i>Networks and Heterogeneous Media</i> , <b>2010</b> , 5, 299-314	1.6	30
89	Time-delayed boundary feedback stabilization of the isothermal Euler equations with friction. <i>Mathematical Control and Related Fields</i> , <b>2011</b> , 1, 469-491	1.5	27
88	Stationary states in gas networks. <i>Networks and Heterogeneous Media</i> , <b>2015</b> , 10, 295-320	1.6	26
87	MIP-based instantaneous control of mixed-integer PDE-constrained gas transport problems. <i>Computational Optimization and Applications</i> , <b>2018</b> , 70, 267-294	1.4	25
86	Optimal switching boundary control of a string to rest in finite time. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , <b>2008</b> , 88, 283-305	1	25

85	A Fast Algorithm for a Class of Generalized Fractional Programs. <i>Management Science</i> , <b>1996</b> , 42, 1493-1499	3.9	21
84	H <sup>2</sup> -stabilization of the Isothermal Euler equations: a Lyapunov function approach. <i>Chinese Annals of Mathematics Series B</i> , <b>2012</b> , 33, 479-500	0.4	20
83	Penalty Techniques for State Constrained Optimal Control Problems with the Wave Equation. <i>SIAM Journal on Control and Optimization</i> , <b>2010</b> , 48, 3026-3051	1.9	20
82	An example for the switching delay feedback stabilization of an infinite dimensional system: The boundary stabilization of a string. <i>Systems and Control Letters</i> , <b>2011</b> , 60, 226-233	2.4	20
81	Analytic Solutions of LQ Optimal Control Problems for the Wave Equation. <i>Journal of Optimization Theory and Applications</i> , <b>2002</b> , 114, 397-421	1.6	20
80	Boundary feedback stabilization of the telegraph equation: Decay rates for vanishing damping term. <i>Systems and Control Letters</i> , <b>2014</b> , 66, 72-84	2.4	19
79	On the Turnpike Phenomenon for Optimal Boundary Control Problems with Hyperbolic Systems. <i>SIAM Journal on Control and Optimization</i> , <b>2019</b> , 57, 264-289	1.9	18
78	Optimal boundary feedback stabilization of a string with moving boundary. <i>IMA Journal of Mathematical Control and Information</i> , <b>2007</b> , 25, 111-121	1.1	18
77	Analysis of a system of nonlocal conservation laws for multi-commodity flow on networks. <i>Networks and Heterogeneous Media</i> , <b>2015</b> , 10, 749-785	1.6	18
76	Prox-Regularization Methods for Generalized Fractional Programming. <i>Journal of Optimization Theory and Applications</i> , <b>1998</b> , 99, 691-722	1.6	17
75	Optimal distributed control of the wave equation subject to state constraints. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , <b>2009</b> , 89, 420-444	1	15
74	Contamination Source Determination in Water Distribution Networks. <i>SIAM Journal on Applied Mathematics</i> , <b>2012</b> , 72, 1772-1791	1.8	15
73	Boundary Controllability between Sub- and Supercritical Flow. <i>SIAM Journal on Control and Optimization</i> , <b>2003</b> , 42, 1056-1070	1.9	15
72	Controllability of a slowly rotating Timoshenko beam. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , <b>2001</b> , 6, 333-360	1	15
71	Modelling, Stabilization, and Control of Flow in Networks of Open Channels <b>2001</b> , 251-270		15
70	Optimal Energy Control in Finite Time by varying the Length of the String. <i>SIAM Journal on Control and Optimization</i> , <b>2007</b> , 46, 1705-1725	1.9	14
69	A strict $H^1$ -Lyapunov function and feedback stabilization for the isothermal Euler equations with friction. <i>Numerical Algebra, Control and Optimization</i> , <b>2011</b> , 1, 225-244	1.7	14
68	Boundary feedback stabilization of the Schrödinger system. <i>Automatica</i> , <b>2015</b> , 51, 192-199	5.7	13

67	The smoothed-penalty algorithm for state constrained optimal control problems for partial differential equations. <i>Optimization Methods and Software</i> , <b>2010</b> , 25, 573-599	1.3	13
66	Weber problems with mixed distances and regional demand. <i>Mathematical Methods of Operations Research</i> , <b>2007</b> , 66, 419-449	1	13
65	Optimal boundary control of a string to rest in finite time with continuous state. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , <b>2006</b> , 86, 134-150	1	13
64	Neumann boundary feedback stabilization for a nonlinear wave equation: A strict $H^2$ -lyapunov function. <i>Mathematical Control and Related Fields</i> , <b>2017</b> , 7, 419-448	1.5	13
63	Well-posedness of Networked Hyperbolic Systems of Balance Laws. <i>International Series of Numerical Mathematics</i> , <b>2012</b> , 123-146	0.4	13
62	The isothermal Euler equations for ideal gas with source term: Product solutions, flow reversal and no blow up. <i>Journal of Mathematical Analysis and Applications</i> , <b>2017</b> , 454, 439-452	1.1	11
61	Optimal Boundary Control and Boundary Stabilization of Hyperbolic Systems. <i>Springer Briefs in Electrical and Computer Engineering</i> , <b>2015</b> ,	0.4	10
60	Approximation of Semigroups and Related Operator Functions by Resolvent Series. <i>SIAM Journal on Numerical Analysis</i> , <b>2010</b> , 48, 1826-1845	2.4	10
59	Towards simulation based mixed-integer optimization with differential equations. <i>Networks</i> , <b>2018</b> , 72, 60-83	1.6	9
58	Stabilizing a vibrating string by time delay <b>2010</b> ,		9
57	Regularization of $L^1$ Optimal Control Problems for Distributed Parameter Systems. <i>Computational Optimization and Applications</i> , <b>2002</b> , 22, 151-192	1.4	9
56	One-sided derivatives for the value function in convex parametric programming. <i>Optimization</i> , <b>1994</b> , 28, 301-314	1.2	9
55	Boundary stabilization of quasilinear hyperbolic systems of balance laws: exponential decay for small source terms. <i>Journal of Evolution Equations</i> , <b>2018</b> , 18, 1471-1500	1.2	9
54	Networks of pipelines for gas with nonconstant compressibility factor: stationary states. <i>Computational and Applied Mathematics</i> , <b>2018</b> , 37, 1066-1097		8
53	Exact penalization of terminal constraints for optimal control problems. <i>Optimal Control Applications and Methods</i> , <b>2016</b> , 37, 1329-1354	1.7	8
52	Optimal boundary control of the wave equation with pointwise control constraints. <i>Computational Optimization and Applications</i> , <b>2011</b> , 49, 123-147	1.4	8
51	A Newton method for the computation of time-optimal boundary controls of one-dimensional vibrating systems. <i>Journal of Computational and Applied Mathematics</i> , <b>2000</b> , 114, 103-119	2.4	7
50	Conservation law constrained optimization based upon Front-Tracking. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , <b>2006</b> , 40, 939-960	1.8	7

49	A note on the approximation of Dirichlet boundary control problems for the wave equation on curved domains. <i>Applicable Analysis</i> , <b>2013</b> , 92, 2200-2214	0.8	6
48	Parametric Disjunctive Programming: One-Sided Differentiability of the Value Function. <i>Journal of Optimization Theory and Applications</i> , <b>1997</b> , 92, 285-310	1.6	6
47	Stabilization of Networked Hyperbolic Systems with Boundary Feedback. <i>International Series of Numerical Mathematics</i> , <b>2014</b> , 487-504	0.4	6
46	On the limits of stabilizability for networks of strings. <i>Systems and Control Letters</i> , <b>2019</b> , 131, 104494	2.4	5
45	Exponential Stabilization of the Wave Equation by Dirichlet Integral Feedback. <i>SIAM Journal on Control and Optimization</i> , <b>2015</b> , 53, 526-546	1.9	5
44	The sensitivity of optimal states to time delay. <i>Proceedings in Applied Mathematics and Mechanics</i> , <b>2014</b> , 14, 775-776	0.2	5
43	Norm-minimal Neumann boundary control of the wave equation. <i>Arabian Journal of Mathematics</i> , <b>2015</b> , 4, 41-58	0.8	5
42	Stabilization of the Gas Flow in Star-Shaped Networks by Feedback Controls with Varying Delay. <i>International Federation for Information Processing</i> , <b>2013</b> , 255-265		5
41	Optimal Neumann Boundary Control of a Vibrating String with Uncertain Initial Data and Probabilistic Terminal Constraints. <i>SIAM Journal on Control and Optimization</i> , <b>2020</b> , 58, 2288-2311	1.9	5
40	Lipschitz continuity of the value function in mixed-integer optimal control problems. <i>Mathematics of Control, Signals, and Systems</i> , <b>2017</b> , 29, 1	1.3	4
39	Boundary Feedback Stabilization of the Isothermal Euler Equations with Uncertain Boundary Data. <i>SIAM Journal on Control and Optimization</i> , <b>2018</b> , 56, 1491-1507	1.9	4
38	On the relaxation approximation of boundary control of the isothermal Euler equations. <i>International Journal of Control</i> , <b>2012</b> , 85, 1766-1778	1.5	4
37	Error bounds for infinite systems of convex inequalities without Slater's condition. <i>Mathematical Programming</i> , <b>2000</b> , 88, 255-275	2.1	4
36	The Newton differential correction algorithm for rational Chebyshev approximation with constrained denominators. <i>Numerical Algorithms</i> , <b>1996</b> , 13, 107-122	2.1	4
35	Nodal Control of Conservation Laws On Networks. <i>Lecture Notes in Pure and Applied Mathematics</i> , <b>2005</b> , 201-215		4
34	Transient Flow in Gas Networks: Traveling waves. <i>International Journal of Applied Mathematics and Computer Science</i> , <b>2018</b> , 28, 341-348	1.7	4
33	Coupling conditions for the transition from supersonic to subsonic fluid states. <i>Networks and Heterogeneous Media</i> , <b>2017</b> , 12, 371-380	1.6	4
32	Exact Boundary Controllability for Free Traffic Flow with Lipschitz Continuous State. <i>Mathematical Problems in Engineering</i> , <b>2016</b> , 2016, 1-11	1.1	4

31	A smoothed penalty iteration for state constrained optimal control problems for partial differential equations. <i>Optimization</i> , <b>2013</b> , 62, 379-395	1.2	3
30	A parametric view on the Mangasarian-Bromovitz constraint qualification. <i>Mathematical Programming</i> , <b>1999</b> , 85, 643-653	2.1	3
29	Stationary Gas Networks with Compressor Control and Random Loads: Optimization with Probabilistic Constraints. <i>Mathematical Problems in Engineering</i> , <b>2018</b> , 2018, 1-17	1.1	3
28	Lipschitz solutions of initial boundary value problems for balance laws. <i>Mathematical Models and Methods in Applied Sciences</i> , <b>2018</b> , 28, 921-951	3.5	2
27	Semi-infinite terminal problems: a newton type method. <i>Optimization</i> , <b>1998</b> , 44, 25-48	1.2	2
26	Convex Semi-Infinite Parametric Programming: Uniform Convergence of the Optimal Value Functions of Discretized Problems. <i>Journal of Optimization Theory and Applications</i> , <b>1999</b> , 101, 191-201	1.6	2
25	Joint Model of Probabilistic-Robust (Probest) Constraints Applied to Gas Network Optimization. <i>Vietnam Journal of Mathematics</i> , <b>2020</b> , 49, 1097	0.5	2
24	Dynamic boundary control games with networks of strings. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , <b>2018</b> , 24, 1789-1813	1	2
23	Time Delay in Optimal Control Loops for Wave Equations. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , <b>2017</b> , 23, 13-37	1	1
22	Exponential Stability for the Schrödinger System by Pyragas Feedback. <i>Vietnam Journal of Mathematics</i> , <b>2020</b> , 48, 769-790	0.5	1
21	Infinite Penalization for Optimal Control Problems: An infinite-dimensional optimization method for constrained optimization problems. <i>Proceedings in Applied Mathematics and Mechanics</i> , <b>2013</b> , 13, 587-588	0.2	1
20	Feedback stabilization of quasilinear hyperbolic systems with varying delays <b>2012</b> ,		1
19	Closed Form Representations of Some Series in Darling Model for Squeeze Film Damping with a Rectangular Plate. <i>Applied Sciences (Switzerland)</i> , <b>2012</b> , 2, 479-484	2.6	1
18	Efficient Numerical Evaluation of Semianalytical Models for Squeeze Film Damping for Torsion Mirrors. <i>Journal of Nanomechanics &amp; Micromechanics</i> , <b>2013</b> , 3, 06013001		1
17	Lavrentiev Prox-regularization Methods for Optimal Control Problems with Pointwise State Constraints. <i>International Series of Numerical Mathematics</i> , <b>2009</b> , 139-153	0.4	1
16	Probabilistic constrained optimization on flow networks. <i>Optimization and Engineering</i> , <b>2011</b> , 12, 1-12	2.1	1
15	L1 Optimal Boundary Control of a String to Rest in Finite Time <b>2006</b> , 149-162		1
14	Closed loop control of gas flow in a pipe: stability for a transient model. <i>Automatisierungstechnik</i> , <b>2020</b> , 68, 1001-1010	0.8	0

13	On the turnpike property with interior decay for optimal control problems. <i>Mathematics of Control, Signals, and Systems</i> , <b>2021</b> , 33, 237-258	1.3	0
12	The Finite-Time Turnpike Phenomenon for Optimal Control Problems: Stabilization by Non-smooth Tracking Terms. <i>SEMA SIMAI Springer Series</i> , <b>2021</b> , 17-41	0.2	0
11	Boundary Stabilization. <i>Springer Briefs in Electrical and Computer Engineering</i> , <b>2015</b> , 69-87	0.4	
10	Exact Controllability. <i>Springer Briefs in Electrical and Computer Engineering</i> , <b>2015</b> , 29-46	0.4	
9	Optimal Boundary Control in Flood Management. <i>International Series of Numerical Mathematics</i> , <b>2007</b> , 69-94	0.4	
8	Nonlinear elasticity: existence theory under subdifferential constraints. <i>Applicable Analysis</i> , <b>1993</b> , 49, 93-99	0.8	
7	A New Model for Transient Flow in Gas Transportation Networks. <i>Industrial and Applied Mathematics</i> , <b>2020</b> , 147-156	0.3	
6	On the Relaxation Approximation for (2times 2) Hyperbolic Balance Laws. <i>Springer Proceedings in Mathematics and Statistics</i> , <b>2018</b> , 651-663	0.2	
5	Optimization under functional constraints (semifinite programming) and applications. <i>Lecture Notes in Economics and Mathematical Systems</i> , <b>1992</b> , 90-126	0.4	
4	Optimal Exact Control. <i>Springer Briefs in Electrical and Computer Engineering</i> , <b>2015</b> , 47-67	0.4	
3	Systems governed by the wave equation. <i>Springer Briefs in Electrical and Computer Engineering</i> , <b>2015</b> , 3-28	0.4	
2	Nonlinear Systems. <i>Springer Briefs in Electrical and Computer Engineering</i> , <b>2015</b> , 89-125	0.4	
1	Transient gas pipeline flow: analytical examples, numerical simulation and a comparison to the quasi-static approach. <i>Optimization and Engineering</i> , 1	2.1	