

Mauro Garavello

List of Publications by Year in descending order

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61
papers

1,580
citations

430874

18
h-index

302126

39
g-index

69
all docs

69
docs citations

69
times ranked

583
citing authors

#	ARTICLE	IF	CITATIONS
1	Traffic Flow on a Road Network. <i>SIAM Journal on Mathematical Analysis</i> , 2005, 36, 1862-1886.	1.9	285
2	Traffic Flow on a Road Network Using the Awâ€“Rascle Model. <i>Communications in Partial Differential Equations</i> , 2006, 31, 243-275.	2.2	140
3	A CLASS OF NONLOCAL MODELS FOR PEDESTRIAN TRAFFIC. <i>Mathematical Models and Methods in Applied Sciences</i> , 2012, 22, 1150023.	3.3	133
4	Flows on networks: recent results and perspectives. <i>EMS Surveys in Mathematical Sciences</i> , 2014, 1, 47-111.	1.4	122
5	Hybrid Necessary Principle. <i>SIAM Journal on Control and Optimization</i> , 2005, 43, 1867-1887.	2.1	96
6	A Well Posed Riemann Problem for the p -System at a Junction. <i>Networks and Heterogeneous Media</i> , 2006, 1, 495-511.	1.1	72
7	On the Cauchy Problem for the p -System at a Junction. <i>SIAM Journal on Mathematical Analysis</i> , 2008, 39, 1456-1471.	1.9	57
8	Conservation laws with discontinuous flux. <i>Networks and Heterogeneous Media</i> , 2007, 2, 159-179.	1.1	56
9	Conservation laws on complex networks. <i>Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire</i> , 2009, 26, 1925-1951.	1.4	49
10	Mixed systems: ODEs â€“ Balance laws. <i>Journal of Differential Equations</i> , 2012, 252, 2311-2338.	2.2	45
11	On the coupling of systems of hyperbolic conservation laws with ordinary differential equations. <i>Nonlinearity</i> , 2010, 23, 2749-2770.	1.4	42
12	Source-Destination Flow on a Road Network. <i>Communications in Mathematical Sciences</i> , 2005, 3, 261-283.	1.0	39
13	The Awâ€“Rascle traffic model with locally constrained flow. <i>Journal of Mathematical Analysis and Applications</i> , 2011, 378, 634-648.	1.0	33
14	A multiscale model for traffic regulation via autonomous vehicles. <i>Journal of Differential Equations</i> , 2020, 269, 6088-6124.	2.2	30
15	An age and space structured SIR model describing the Covid-19 pandemic. <i>Journal of Mathematics in Industry</i> , 2020, 10, 22.	1.2	30
16	Vanishing Viscosity for Traffic on Networks. <i>SIAM Journal on Mathematical Analysis</i> , 2010, 42, 1761-1783.	1.9	26
17	The Cauchy problem at a node with buffer. <i>Discrete and Continuous Dynamical Systems</i> , 2012, 32, 1915-1938.	0.9	26
18	A Time-Dependent Optimal Harvesting Problem with Measure-Valued Solutions. <i>SIAM Journal on Control and Optimization</i> , 2017, 55, 913-935.	2.1	22

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19	Hybrid optimal control: Case study of a car with gears. <i>International Journal of Control</i> , 2003, 76, 1272-1284.	1.9	20
20	Non-local crowd dynamics. <i>Comptes Rendus Mathematique</i> , 2011, 349, 769-772.	0.3	17
21	Optimality principles and uniqueness for Bellman equations of unbounded control problems with discontinuous running cost. <i>Nonlinear Differential Equations and Applications</i> , 2004, 11, 271-298.	0.8	15
22	On fluido-dynamic models for urban traffic. <i>Networks and Heterogeneous Media</i> , 2009, 4, 107-126.	1.1	15
23	Optimizing vaccination strategies in an age structured SIR model. <i>Mathematical Biosciences and Engineering</i> , 2020, 17, 1074-1089.	1.9	14
24	A Multibuffer Model for LWR Road Networks. <i>Complex Networks and Dynamic Systems</i> , 2013, , 143-161.	0.6	13
25	A review of conservation laws on networks. <i>Networks and Heterogeneous Media</i> , 2010, 5, 565-581.	1.1	13
26	The Cauchy problem for the Awâ€“Rascleâ€“Zhang traffic model with locally constrained flow. <i>Journal of Hyperbolic Differential Equations</i> , 2017, 14, 393-414.	0.5	12
27	Well Posedness and Control in a NonLocal SIR Model. <i>Applied Mathematics and Optimization</i> , 2021, 84, 737-771.	1.6	12
28	Time-varying Riemann solvers for conservation laws on networks. <i>Journal of Differential Equations</i> , 2009, 247, 447-464.	2.2	11
29	COUPLING OF Lighthillâ€“Whithamâ€“Richards and Phase Transition Models. <i>Journal of Hyperbolic Differential Equations</i> , 2013, 10, 577-636.	0.5	10
30	Differential Equations Modeling Crowd Interactions. <i>Journal of Nonlinear Science</i> , 2015, 25, 827-859.	2.1	10
31	Stability and optimization in structured population models on graphs. <i>Mathematical Biosciences and Engineering</i> , 2015, 12, 311-335.	1.9	10
32	On the Optimization of Conservation Law Models at a Junction with Inflow and Flow Distribution Controls. <i>SIAM Journal on Control and Optimization</i> , 2018, 56, 3370-3403.	2.1	9
33	Representation Formulas for Solutions of the HJI Equations with Discontinuous Coefficients and Existence of Value in Differential Games. <i>Journal of Optimization Theory and Applications</i> , 2006, 130, 209-229.	1.5	8
34	Vanishing viscosity for mixed systems with moving boundaries. <i>Journal of Functional Analysis</i> , 2013, 264, 1664-1710.	1.4	7
35	A mathematical model for piracy control through police response. <i>Nonlinear Differential Equations and Applications</i> , 2017, 24, 1.	0.8	7
36	On the interactions between a solid body and a compressible inviscid fluid. <i>Interfaces and Free Boundaries</i> , 2013, 15, 381-403.	0.8	6

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37	Boundary coupling of microscopic and first order macroscopic traffic models. <i>Nonlinear Differential Equations and Applications</i> , 2017, 24, 1.	0.8	6
38	On conditions that prevent steady-state controllability of certain linear partial differential equations. <i>Discrete and Continuous Dynamical Systems</i> , 2006, 14, 643-672.	0.9	6
39	The Riemann Problem at a Junction for a Phase Transition Traffic Model. <i>Discrete and Continuous Dynamical Systems</i> , 2017, 37, 5191-5209.	0.9	6
40	Coupling of microscopic and phase transition models at boundary. <i>Networks and Heterogeneous Media</i> , 2013, 8, 649-661.	1.1	5
41	Crowd Dynamics Through Conservation Laws. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2020, , 83-110.	0.6	4
42	Phase Transition Model for Traffic at a Junction. <i>Journal of Mathematical Sciences</i> , 2014, 196, 30-36.	0.4	3
43	Control of biological resources on graphs. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2017, 23, 1073-1097.	1.3	3
44	Verification Theorems for Hamilton-Jacobi-Bellman Equations. <i>SIAM Journal on Control and Optimization</i> , 2003, 42, 1623-1642.	2.1	2
45	Optimal control in renewable resources modeling. <i>Bulletin of the Brazilian Mathematical Society</i> , 2016, 47, 347-357.	0.8	2
46	A Riemann solver at a junction compatible with a homogenization limit. <i>Journal of Mathematical Analysis and Applications</i> , 2018, 464, 1333-1351.	1.0	2
47	Vanishing viscosity for a 2×2 system modeling congested vehicular traffic. <i>Networks and Heterogeneous Media</i> , 2021, 16, 413.	1.1	2
48	Conservation Laws at A Node. <i>The IMA Volumes in Mathematics and Its Applications</i> , 2011, , 293-302.	0.5	2
49	Optimal strategies for a time-dependent harvesting problem. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2018, 11, 865-900.	1.1	2
50	Hyperbolic consensus games. <i>Communications in Mathematical Sciences</i> , 2019, 17, 1005-1024.	1.0	2
51	Hybrid Necessary Principles: An Application to a Car with Gears. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2003, 36, 253-258.	0.4	1
52	Polynomial profits in renewable resources management. <i>Nonlinear Analysis: Real World Applications</i> , 2017, 37, 374-386.	1.7	1
53	Global Weak Solutions to the Cauchy Problem for a Two-Phase Model at a Node. <i>SIAM Journal on Mathematical Analysis</i> , 2020, 52, 1567-1590.	1.9	1
54	The LWR traffic model at a junction with multibuffers. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2014, 7, 463-482.	1.1	1

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55	Boundary value problem for a phase transition model. <i>Networks and Heterogeneous Media</i> , 2016, 11, 89-105.	1.1	1
56	The Godunov method for a 2-phase model. <i>Communications in Applied and Industrial Mathematics</i> , 2017, 8, 149-164.	0.3	1
57	Advanced mathematical methodologies to contrast COVID-19 pandemic. <i>Networks and Heterogeneous Media</i> , 2022, 17, i.	1.1	1
58	On conditions that prevent steady-state controllability of certain linear partial differential equations. , 0, , .		0
59	Well posedness and control in renewal equations with nonlocal boundary conditions. <i>Mathematical Methods in the Applied Sciences</i> , 2021, 44, 11537-11564.	2.3	0
60	A Riemann Solver Approach for Conservation Laws with Discontinuous Flux. , 2008, , 1029-1036.		0
61	On the 1D modeling of fluid flowing through a Junction. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2020, 25, 3917-3929.	0.9	0