Mauro Garavello

List of Publications by Year
in descending order

61 papers	1,580 citations	489802 18 h-index	340414 39 g-index
69 all docs	69 docs citations	69 times ranked	657 citing authors

#	Article	IF	Citations
1	Advanced mathematical methodologies to contrast COVID-19 pandemic. Networks and Heterogeneous Media, 2022, 17, i.	0.5	1
2	Vanishing viscosity for a $ 2imes 2 $ system modeling congested vehicular traffic. Networks and Heterogeneous Media, 2021, 16, 413.	0.5	2
3	Well posedness and control in renewal equations with nonlocal boundary conditions. Mathematical Methods in the Applied Sciences, 2021, 44, 11537-11564.	1.2	0
4	Well Posedness and Control in a NonLocal SIR Model. Applied Mathematics and Optimization, 2021, 84, 737-771.	0.8	12
5	Global Weak Solutions to the Cauchy Problem for a Two-Phase Model at a Node. SIAM Journal on Mathematical Analysis, 2020, 52, 1567-1590.	0.9	1
6	A multiscale model for traffic regulation via autonomous vehicles. Journal of Differential Equations, 2020, 269, 6088-6124.	1.1	30
7	An age and space structured SIR model describing the Covid-19 pandemic. Journal of Mathematics in Industry, 2020, 10, 22.	0.7	30
8	Optimizing vaccination strategies in an age structured SIR model. Mathematical Biosciences and Engineering, 2020, 17, 1074-1089.	1.0	14
9	On the 1D modeling of fluid flowing through a Junction. Discrete and Continuous Dynamical Systems - Series B, 2020, 25, 3917-3929.	0.5	0
10	Crowd Dynamics Through Conservation Laws. Modeling and Simulation in Science, Engineering and Technology, 2020, , 83-110.	0.4	4
11	Hyperbolic consensus games. Communications in Mathematical Sciences, 2019, 17, 1005-1024.	0.5	2
12	On the Optimization of Conservation Law Models at a Junction with Inflow and Flow Distribution Controls. SIAM Journal on Control and Optimization, 2018, 56, 3370-3403.	1.1	9
13	A Riemann solver at a junction compatible with a homogenization limit. Journal of Mathematical Analysis and Applications, 2018, 464, 1333-1351.	0.5	2
14	Optimal strategies for a time-dependent harvesting problem. Discrete and Continuous Dynamical Systems - Series S, 2018, 11, 865-900.	0.6	2
15	A Time-Dependent Optimal Harvesting Problem with Measure-Valued Solutions. SIAM Journal on Control and Optimization, 2017, 55, 913-935.	1.1	22
16	Polynomial profits in renewable resources management. Nonlinear Analysis: Real World Applications, 2017, 37, 374-386.	0.9	1
17	The Cauchy problem for the Awâ€“Rascleâ€“Zhang traffic model with locally constrained flow. Journal of Hyperbolic Differential Equations, 2017, 14, 393-414.	0.3	12
18	A mathematical model for piracy control through police response. Nonlinear Differential Equations and Applications, 2017, 24, 1.	0.4	7

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19	Boundary coupling of microscopic and first order macroscopic traffic models. Nonlinear Differential Equations and Applications, 2017, 24, 1.	0.4	6
20	Control of biological resources on graphs. ESAIM - Control, Optimisation and Calculus of Variations, 2017, 23, 1073-1097.	0.7	3
21	The Riemann Problem at a Junction for a Phase Transition Traffic Model. Discrete and Continuous Dynamical Systems, 2017, 37, 5191-5209.	0.5	6
22	The Godunov method for a 2-phase model. Communications in Applied and Industrial Mathematics, 2017, 8, 149-164.	0.6	1
23	Optimal control in renewable resources modeling. Bulletin of the Brazilian Mathematical Society, 2016, 47, 347-357.	0.3	2
24	Boundary value problem for a phase transition model. Networks and Heterogeneous Media, 2016, 11, 89-105.	0.5	1
25	Differential Equations Modeling Crowd Interactions. Journal of Nonlinear Science, 2015, 25, 827-859.	1.0	10
26	Stability and optimization in structured population models on graphs. Mathematical Biosciences and Engineering, 2015, 12, 311-335.	1.0	10
27	Flows on networks: recent results and perspectives. EMS Surveys in Mathematical Sciences, 2014, 1, 47-111.	1.5	122
28	Phase Transition Model for Traffic at a Junction. Journal of Mathematical Sciences, 2014, 196, 30-36.	0.1	3
29	The LWR traffic model at a junction with multibuffers. Discrete and Continuous Dynamical Systems - Series S, 2014, 7, 463-482.	0.6	1
30	Vanishing viscosity for mixed systems with moving boundaries. Journal of Functional Analysis, 2013, 264, 1664-1710.	0.7	7
31	COUPLING OF LIGHTHILLâ€“WHITHAMâ€“RICHARDS AND PHASE TRANSITION MODELS. Journal of Hyperbolic Differential Equations, 2013, 10, 577-636.	0.3	10
32	On the interactions between a solid body and a compressible inviscid fluid. Interfaces and Free Boundaries, 2013, 15, 381-403.	0.2	6
33	A Multibuffer Model for LWR Road Networks. Complex Networks and Dynamic Systems, 2013, , 143-161.	0.6	13
34	Coupling of microscopic and phase transition models at boundary. Networks and Heterogeneous Media, 2013, 8, 649-661.	0.5	5
35	A CLASS OF NONLOCAL MODELS FOR PEDESTRIAN TRAFFIC. Mathematical Models and Methods in Applied Sciences, 2012, 22, 1150023.	1.7	133
36	Mixed systems: ODEs â€“ Balance laws. Journal of Differential Equations, 2012, 252, 2311-2338.	1.1	45

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37	The Cauchy problem at a node with buffer. Discrete and Continuous Dynamical Systems, 2012, 32, 1915-1938.	0.5	26
38	Non-local crowd dynamics. Comptes Rendus Mathematique, 2011, 349, 769-772.	0.1	17
39	The Awâ€“Rascle traffic model with locally constrained flow. Journal of Mathematical Analysis and Applications, 2011, 378, 634-648.	0.5	33
40	Conservation Laws at A Node. The IMA Volumes in Mathematics and Its Applications, 2011, , 293-302.	0.5	2
41	On the coupling of systems of hyperbolic conservation laws with ordinary differential equations. Nonlinearity, 2010, 23, 2749-2770.	0.6	42
42	Vanishing Viscosity for Traffic on Networks. SIAM Journal on Mathematical Analysis, 2010, 42, 1761-1783.	0.9	26
43	A review of conservation laws on networks. Networks and Heterogeneous Media, 2010, 5, 565-581.	0.5	13
44	Conservation laws on complex networks. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2009, 26, 1925-1951.	0.7	49
45	Time-varying Riemann solvers for conservation laws on networks. Journal of Differential Equations, 2009, 247, 447-464.	1.1	11
46	On fluido-dynamic models for urban traffic. Networks and Heterogeneous Media, 2009, 4, 107-126.	0.5	15
47	On the Cauchy Problem for the p-System at a Junction. SIAM Journal on Mathematical Analysis, 2008, 39, 1456-1471.	0.9	57
48	A Riemann Solver Approach for Conservation Laws with Discontinuous Flux. , 2008, , 1029-1036.		0
49	Conservation laws with discontinuous flux. Networks and Heterogeneous Media, 2007, 2, 159-179.	0.5	56
50	Traffic Flow on a Road Network Using the Awâ€“Rascle Model. Communications in Partial Differential Equations, 2006, 31, 243-275.	1.0	140
51	A Well Posed Riemann Problem for the p–System at a Junction. Networks and Heterogeneous Media, 2006, 1, 495-511.	0.5	72
52	Representation Formulas for Solutions of the HJI Equations with Discontinuous Coefficients and Existence of Value in Differential Games. Journal of Optimization Theory and Applications, 2006, 130, 209-229.	0.8	8
53	On conditions that prevent steady-state controllability of certain linear partial differential equations. Discrete and Continuous Dynamical Systems, 2006, 14, 643-672.	0.5	6
54	Hybrid Necessary Principle. SIAM Journal on Control and Optimization, 2005, 43, 1867-1887.	1.1	96

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55	Traffic Flow on a Road Network. SIAM Journal on Mathematical Analysis, 2005, 36, 1862-1886.	0.9	285
56	Source-Destination Flow on a Road Network. Communications in Mathematical Sciences, 2005, 3, 261-283.	0.5	39
57	Optimality principles and uniqueness for Bellman equations of unbounded control problems with discontinuous running cost. Nonlinear Differential Equations and Applications, 2004, 11, 271-298.	0.4	15
58	Verification Theorems for Hamilton--Jacobi--Bellman Equations. SIAM Journal on Control and Optimization, 2003, 42, 1623-1642.	1.1	2
59	Hybrid optimal control: Case study of a car with gears. International Journal of Control, 2003, 76, 1272-1284.	1.2	20
60	Hybrid Necessary Principles: An Application to a Car with Gears. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 253-258.	0.4	1
61	On conditions that prevent steady-state controllability of certain linear partial differential equations. , 0, , .		0