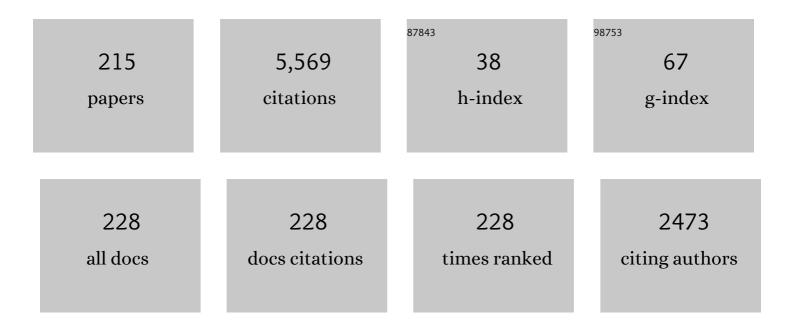
Benedetto Piccoli

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/5267660/publications.pdf Version: 2024-02-01



1 Optimization of vaccination for COVID-19 in the middt of a pandemic. Networks and Heterogeneous 0.6 7 2 Amasure model for the spread of viral infections with mutations. Networks and Heterogeneous 0.5 3 3 Alunifed Model for Entrainment by Circadian Clocks: Dynamic Circadian Integrated Response 1.4 1 4 Managing public transit during a pandemic: The trade-off between safety and mobility. Transportation 3.9 10 a Advanced mathematical methodologies to contrast COVID-19 pandemic. Networks and Heterogeneous 0.5 3 a Advanced mathematical methodologies to contrast COVID-19 pandemic. Networks and Heterogeneous 0.5 1 a Advanced mathematical methodologies to contrast COVID-19 pandemic. Networks and Heterogeneous 0.5 1 a Advanced mathematical methodologies to contrast COVID-19 pandemic. Networks and Heterogeneous 0.5 3 a Advanced mathematical methodologies to contrast COVID-19 pandemic. Networks and Deterogeneous 0.5 3 a Arigorous multi-population multi-lane hybrid traffic model for dissipation of waves via autonomous 1.2 3 a Accomputational modular approach to evaluate 5 (mathrm(NO_ (s))) 5 emissions and ozone production due to welcular traffic. Decrete and Continuous Dynamical Systems - Series B 2021	#	Article	IF	CITATIONS
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3 Characteristic (4C/RC). Journal of Biological Rhythms, 2022, 37, 202-215. L4 L4 1 4 Managing public transit during a pandemic: The trade-off between safety and mobility. Transportation Research Part C: Emerging Technologies, 2022, 138, 103592. 3.9 10 6 Advanced mathematical methodologies to contrast COVID-19 pandemic. Networks and Heterogeneous 0.5 1 6 Arigorous multi-population multi-lane hybrid traffic model for dissipation of waves via autonomous 1.2 3 7 Are Commercially Implemented Adaptive Cruise Control Systems String Stable?. IEEE Transactions on production due to vehicular traffic. Discret and Continuous Dynamical Systems - Series B, 2021,. 0.5 3 7 Are computational modular approach to evaluate \$ (mathrm(NO_{(X)}) \$ emissions and ozone production due to vehicular traffic. Discret and Continuous Dynamical Systems - Series B, 2021,. 0.5 3 9 A Two Step Model of Human Entrainment: A Quantitative Study of Circadian Period and Phase of Entrainment. Builetim of Mathematical Biology, 2021, 83, 12. 0.9 2 10 Multiscale Control of Ceneric Second Order Traffic Models by Driver-Assist Vehicles. Multiscale 0.6 4 11 A Three-Phase Fundamental Diagram from Three-Dimensional Traffic Data. Axioms, 2021, 10, 17. 0.9 4 12 History and Future Perspectives on the Disc	2		0.5	3
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10 Modeling and Simulation, 2021, 19, 589-611. 0.6 4 11 A Three-Phase Fundamental Diagram from Three-Dimensional Traffic Data. Axioms, 2021, 10, 17. 0.9 4 12 History and Future Perspectives on the Discipline of Quantitative Systems Pharmacology Modeling and Its Applications. Frontiers in Physiology, 2021, 12, 637999. 1.3 44 13 Generalized solutions to bounded-confidence models. Mathematical Models and Methods in Applied 1.7 8 14 Mean-field of optimal control problems for hybrid model of multilane traffic., 2021, , . 1 1 15 Integrated Framework of Vehicle Dynamics, Instabilities, Energy Models, and Sparse Flow Smoothing Controllers., 2021, , . 8 16 A statistical mechanics approach to macroscopic limits of car-following traffic dynamics. International Journal of Non-Linear Mechanics, 2021, 137, 103806. 1.4 2	9		0.9	2
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12 Its Applications. Frontiers in Physiology, 2021, 12, 637999. 1.3 44 13 Generalized solutions to bounded-confidence models. Mathematical Models and Methods in Applied 1.7 8 14 Mean-field of optimal control problems for hybrid model of multilane traffic. , 2021, ,. 1 15 Integrated Framework of Vehicle Dynamics, Instabilities, Energy Models, and Sparse Flow Smoothing 8 16 A statistical mechanics approach to macroscopic limits of car-following traffic dynamics. International Journal of Non-Linear Mechanics, 2021, 137, 103806. 1.4 2	11	A Three-Phase Fundamental Diagram from Three-Dimensional Traffic Data. Axioms, 2021, 10, 17.	0.9	4
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	17	Mean-Field of Optimal Control Problems for Hybrid Model of Multilane Traffic. , 2021, 5, 1964-1969.		7

18 Synthesis Theory in Optimal Control. , 2021, , 2266-2275.

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19	Control of COVID-19 outbreak using an extended SEIR model. Mathematical Models and Methods in Applied Sciences, 2021, 31, 2399-2424.	1.7	15
20	Synthesis Theory in Optimal Control. , 2021, , 1-9.		0
21	Control of Collective Dynamics with Time-Varying Weights. Springer INdAM Series, 2021, , 289-308.	0.4	2
22	Generalized Solutions to Opinion Dynamics Models with Discontinuities. Modeling and Simulation in Science, Engineering and Technology, 2021, , 11-47.	0.4	5
23	Generalized dynamic programming principle and sparse mean-field control problems. Journal of Mathematical Analysis and Applications, 2020, 481, 123437.	0.5	13
24	Habitat-Specific Clock Variation and Its Consequence on Reproductive Fitness. Journal of Biological Rhythms, 2020, 35, 134-144.	1.4	8
25	Quantitative analyses of EGFR localization and trafficking dynamics in the follicular epithelium. Development (Cambridge), 2020, 147, .	1.2	9
26	Model-based assessment of the impact of driver-assist vehicles using kinetic theory. Zeitschrift Fur Angewandte Mathematik Und Physik, 2020, 71, 1.	0.7	18
27	A multiscale model for traffic regulation via autonomous vehicles. Journal of Differential Equations, 2020, 269, 6088-6124.	1.1	30
28	Sparse Control of HegselmannKrause Models: Black Hole and Declustering. SIAM Journal on Control and Optimization, 2019, 57, 2628-2659.	1.1	24
29	Traffic Reconstruction Using Autonomous Vehicles. SIAM Journal on Applied Mathematics, 2019, 79, 1748-1767.	0.8	16
30	Tracking vehicle trajectories and fuel rates in phantom traffic jams: Methodology and data. Transportation Research Part C: Emerging Technologies, 2019, 99, 82-109.	3.9	39
31	String stability of commercial adaptive cruise control vehicles. , 2019, , .		2
32	Real-time distance estimation and filtering of vehicle headways for smoothing of traffic waves. , 2019, , .		5
33	Well-Posedness for Scalar Conservation Laws with Moving Flux Constraints. SIAM Journal on Applied Mathematics, 2019, 79, 641-667.	0.8	10
34	Measure Differential Equations. Archive for Rational Mechanics and Analysis, 2019, 233, 1289-1317.	1.1	15
35	Social dynamics models with time-varying influence. Mathematical Models and Methods in Applied Sciences, 2019, 29, 681-716.	1.7	14
36	Quantifying air quality benefits resulting from few autonomous vehicles stabilizing traffic. Transportation Research, Part D: Transport and Environment, 2019, 67, 351-365.	3.2	79

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37	Feedback Control Algorithms for the Dissipation of Traffic Waves with Autonomous Vehicles. Springer Optimization and Its Applications, 2019, , 275-299.	0.6	18
38	Special issue on mathematical methods in systems biology. Networks and Heterogeneous Media, 2019, 14, âº-â±.	0.5	1
39	Stability of metabolic networks via Linear-in-Flux-Expressions. Networks and Heterogeneous Media, 2019, 14, 101-130.	0.5	3
40	Measure dynamics with Probability Vector Fields and sources. Discrete and Continuous Dynamical Systems, 2019, 39, 6207-6230.	0.5	7
41	Equilibria and control of metabolic networks with enhancers and inhibitors. Mathematics in Engineering, 2019, 1, 648-671.	0.5	1
42	Dissipation of stop-and-go waves via control of autonomous vehicles: Field experiments. Transportation Research Part C: Emerging Technologies, 2018, 89, 205-221.	3.9	459
43	Regularization of Chattering Phenomena via Bounded Variation Controls. IEEE Transactions on Automatic Control, 2018, 63, 2046-2060.	3.6	19
44	Measure differential inclusions. , 2018, , .		4
45	Equilibria for Large Metabolic Systems and the LIFE Approach. , 2018, , .		2
46	Measure-Theoretic Models for Crowd Dynamics. Modeling and Simulation in Science, Engineering and Technology, 2018, , 137-165.	0.4	21
47	Riemann solver for a macroscopic double-lane roundabout model. IFAC-PapersOnLine, 2018, 51, 55-60.	0.5	Ο
48	Dissipation of Emergent Traffic Waves in Stop-and-Go Traffic Using a Supervisory Controller. , 2018, , .		8
49	Sparse control to prevent Black Swan clustering in collective dynamics. , 2018, , .		Ο
50	Averaged time-optimal control problem in the space of positive Borel measures. ESAIM - Control, Optimisation and Calculus of Variations, 2018, 24, 721-740.	0.7	8
51	A General BV Existence Result for Conservation Laws with Spatial Heterogeneities. SIAM Journal on Mathematical Analysis, 2018, 50, 2901-2927.	0.9	9
52	Superposition Principle for Differential Inclusions. Lecture Notes in Computer Science, 2018, , 201-209.	1.0	8
53	Two algorithms for a fully coupled and consistently macroscopic PDE-ODEsystem modeling a moving bottleneck on a road. Mathematics in Engineering, 2018, 1, 55-83.	0.5	4
54	Fluvial to torrential phase transition in open canals. Networks and Heterogeneous Media, 2018, 13, 663-690.	0.5	3

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55	Priority-based Riemann solver for traffic flow on networks. Communications in Mathematical Sciences, 2018, 16, 185-211.	0.5	9
56	Interaction Network, State Space, and Control in Social Dynamics. Modeling and Simulation in Science, Engineering and Technology, 2017, , 99-140.	0.4	21
57	Multiscale Modeling and Control Architecture for V2X Enabled Traffic Streams. IEEE Transactions on Vehicular Technology, 2017, 66, 4616-4626.	3.9	13
58	Regularity and Lyapunov Stabilization of Weak Entropy Solutions to Scalar Conservation Laws. IEEE Transactions on Automatic Control, 2017, 62, 1620-1635.	3.6	27
59	Modeling birds on wires. Journal of Theoretical Biology, 2017, 415, 102-112.	0.8	5
60	Traffic Regulation via Controlled Speed Limit. SIAM Journal on Control and Optimization, 2017, 55, 2936-2958.	1.1	19
61	Sparse Jurdjevic–Quinn stabilization of dissipative systems. Automatica, 2017, 86, 110-120.	3.0	10
62	A Convex Formulation of Traffic Dynamics on Transportation Networks. SIAM Journal on Applied Mathematics, 2017, 77, 1493-1515.	0.8	2
63	Experimental and Mathematical Analyses Relating Circadian Period and Phase of Entrainment inNeurospora crassa. Journal of Biological Rhythms, 2017, 32, 550-559.	1.4	5
64	Boundary coupling of microscopic and first order macroscopic traffic models. Nonlinear Differential Equations and Applications, 2017, 24, 1.	0.4	6
65	Mean-field sparse Jurdjevic–Quinn control. Mathematical Models and Methods in Applied Sciences, 2017, 27, 1223-1253.	1.7	20
66	Linear-In-Flux-Expressions Methodology: Toward a Robust Mathematical Framework for Quantitative Systems Pharmacology Simulators. Gene Regulation and Systems Biology, 2017, 11, 117762501771141.	2.3	6
67	Optimal synchronization problem for a multi-agent system. Networks and Heterogeneous Media, 2017, 12, 277-295.	0.5	10
68	Optimal control of a multi-level dynamic model for biofuel production. Mathematical Control and Related Fields, 2017, 7, 235-257.	0.6	0
69	Control of reaction-diffusion equations on time-evolving manifolds. , 2016, 2016, 1614-1619.		3
70	Sparse kinetic Jurdjevic-Quinn control for mean-field equations. , 2016, , .		0
71	Sparse feedback stabilization of multi-agent dynamics. , 2016, , .		7
72	Multiscale approaches to crowd dynamics and the reliability of data from experiments. Physics of Life Reviews, 2016, 18, 46-47.	1.5	1

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73	On Properties of the Generalized Wasserstein Distance. Archive for Rational Mechanics and Analysis, 2016, 222, 1339-1365.	1.1	42
74	Outflow tracking with variable speed limit. , 2016, , .		0
75	Notes on RKDG Methods for Shallow-Water Equations in Canal Networks. Journal of Scientific Computing, 2016, 68, 1101-1123.	1.1	9
76	Continuity of the path delay operator for dynamic network loading with spillback. Transportation Research Part B: Methodological, 2016, 92, 211-233.	2.8	23
77	Optimal control of a collective migration model. Mathematical Models and Methods in Applied Sciences, 2016, 26, 383-417.	1.7	10
78	Continuous-time link-based kinematic wave model: formulation, solution existence, and well-posedness. Transportmetrica B, 2016, 4, 187-222.	1.4	31
79	A numerical method for the computation of tangent vectors to \$2 imes 2\$ hyperbolic systems of conservation laws. Communications in Mathematical Sciences, 2016, 14, 683-704.	0.5	4
80	Control of the 1D continuous version of the Cucker-Smale model. , 2015, , .		1
81	Developmental Partial Differential Equations. , 2015, , .		0
82	Control to Flocking of the Kinetic CuckerSmale Model. SIAM Journal on Mathematical Analysis, 2015, 47, 4685-4719.	0.9	70
83	Second-order models and traffic data from mobile sensors. Transportation Research Part C: Emerging Technologies, 2015, 52, 32-56.	3.9	42
84	Sparse stabilization and control of alignment models. Mathematical Models and Methods in Applied Sciences, 2015, 25, 521-564.	1.7	83
85	Runge–Kutta Discontinuous Galerkin Method for Traffic Flow Model on Networks. Journal of Scientific Computing, 2015, 63, 233-255.	1.1	21
86	A nonlinear model of opinion formation on the sphere. Discrete and Continuous Dynamical Systems, 2015, 35, 4241-4268.	0.5	45
87	Keep right or left? Towards a cognitive-mathematical model for pedestrians. Networks and Heterogeneous Media, 2015, 10, 559-578.	0.5	2
88	Special issue on modeling and control in social dynamics. Networks and Heterogeneous Media, 2015, 10, i-ii.	0.5	0
89	Flows on networks: recent results and perspectives. EMS Surveys in Mathematical Sciences, 2014, 1, 47-111.	1.5	122

90 Mean-field optimal control by leaders. , 2014, , .

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91	Synthesis Theory in Optimal Control. , 2014, , 1-11.		1
92	An Introduction to the Modeling of Crowd Dynamics. Modeling, Simulation and Applications, 2014, , 3-27.	1.3	1
93	An Overview of the Modeling of Crowd Dynamics. Modeling, Simulation and Applications, 2014, , 73-107.	1.3	2
94	Multiscale Modeling by Time-Evolving Measures. Modeling, Simulation and Applications, 2014, , 109-135.	1.3	2
95	On the continuum approximation of the on-and-off signal control on dynamic traffic networks. Transportation Research Part B: Methodological, 2014, 61, 73-97.	2.8	47
96	Mean-field sparse optimal control. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130400.	1.6	70
97	Control of multiscale model for social dynamics. , 2014, , .		0
98	Multiscale Modeling of Pedestrian Dynamics. Modeling, Simulation and Applications, 2014, , .	1.3	129
99	Generalized Wasserstein Distance and its Application to Transport Equations with Source. Archive for Rational Mechanics and Analysis, 2014, 211, 335-358.	1.1	109
100	Traffic modeling and management: Trends and perspectives. Discrete and Continuous Dynamical Systems - Series S, 2014, 7, i-ii.	0.6	0
101	Basic Theory of Measure-Based Models. Modeling, Simulation and Applications, 2014, , 137-168.	1.3	0
102	Psychological Insights. Modeling, Simulation and Applications, 2014, , 53-69.	1.3	0
103	Evolution in Measure Spaces with Wasserstein Distance. Modeling, Simulation and Applications, 2014, , 169-194.	1.3	0
104	Generalizations of the Multiscale Approach. Modeling, Simulation and Applications, 2014, , 195-219.	1.3	0
105	Problems and Simulations. Modeling, Simulation and Applications, 2014, , 29-52.	1.3	Ο
106	Estimating fuel consumption and emissions via traffic data from mobile sensors. , 2013, , .		2
107	Existence of solution to supply chain models based on partial differential equation with discontinuous flux function. Journal of Mathematical Analysis and Applications, 2013, 401, 510-517.	0.5	7
108	Transport Equation with Nonlocal Velocity in Wasserstein Spaces: Convergence of Numerical Schemes. Acta Applicandae Mathematicae, 2013, 124, 73-105.	0.5	73

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109	Instantaneous frequency estimation of interfering FM signals through time-scale isolevel curves. Signal Processing, 2013, 93, 882-896.	2.1	9
110	Numerical Schemes for the Optimal Input Flow of a Supply Chain. SIAM Journal on Numerical Analysis, 2013, 51, 2634-2650.	1.1	15
111	Reducing actuator switchings for motion control of autonomous underwater vehicles. , 2013, , .		6
112	COUPLING OF LIGHTHILL–WHITHAM–RICHARDS AND PHASE TRANSITION MODELS. Journal of Hyperbolic Differential Equations, 2013, 10, 577-636.	0.3	10
113	A Multibuffer Model for LWR Road Networks. Complex Networks and Dynamic Systems, 2013, , 143-161.	0.6	13
114	Vehicular Traffic: A Review of Continuum Mathematical Models. , 2013, , 1-37.		1
115	Sparse stabilization and optimal control of the Cucker-Smale model. Mathematical Control and Related Fields, 2013, 3, 447-466.	0.6	79
116	Coupling of microscopic and phase transition models at boundary. Networks and Heterogeneous Media, 2013, 8, 649-661.	0.5	5
117	Special issue on Mathematics of Traffic Flow Modeling, Estimation and Control. Networks and Heterogeneous Media, 2013, 8, i-ii.	0.5	0
118	Optimal distribution of traffic flows in emergency cases. European Journal of Applied Mathematics, 2012, 23, 515-535.	1.4	19
119	How can macroscopic models reveal self-organization in traffic flow?. , 2012, , .		10
120	MODELING CROWD DYNAMICS FROM A COMPLEX SYSTEM VIEWPOINT. Mathematical Models and Methods in Applied Sciences, 2012, 22, .	1.7	116
121	A General Phase Transition Model for Traffic Flow on Networks. Procedia, Social and Behavioral Sciences, 2012, 54, 302-311.	0.5	5
122	Vehicular Traffic: AÂReview of Continuum Mathematical Models. , 2012, , 1748-1770.		7
123	Optimal syntheses for state constrained problems with application to optimization of cancer therapies. Mathematical Control and Related Fields, 2012, 2, 383-398.	0.6	4
124	Optimal input flows for a PDE–ODE model of supply chains. Communications in Mathematical Sciences, 2012, 10, 1225-1240.	0.5	16
125	On the Validity of Fluid-dynamic Models for Data Networks. Journal of Networks, 2012, 7, .	0.4	3
126	A General Phase Transition Model for Vehicular Traffic. SIAM Journal on Applied Mathematics, 2011, 71, 107-127.	0.8	78

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127	An Upwind-Euler Scheme for an ODE-PDE Model of Supply Chains. SIAM Journal of Scientific Computing, 2011, 33, 1669-1688.	1.3	19
128	Moving Bottlenecks in Car Traffic Flow: A PDE-ODE Coupled Model. SIAM Journal on Mathematical Analysis, 2011, 43, 50-67.	0.9	80
129	Multiscale Modeling of Granular Flows with Application to Crowd Dynamics. Multiscale Modeling and Simulation, 2011, 9, 155-182.	0.6	169
130	Left invertibility of discrete-time output-quantized systems: the linear case with finite inputs. Mathematics of Control, Signals, and Systems, 2011, 23, 117-139.	1.4	2
131	Effects of anisotropic interactions on the structure of animal groups. Journal of Mathematical Biology, 2011, 62, 569-588.	0.8	36
132	Time-Evolving Measures and Macroscopic Modeling of Pedestrian Flow. Archive for Rational Mechanics and Analysis, 2011, 199, 707-738.	1.1	132
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