

# Emiliano Cristiani

## List of Publications by Year in descending order

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45  
papers

999  
citations

471509

17  
h-index

434195

31  
g-index

45  
all docs

45  
docs citations

45  
times ranked

571  
citing authors

#	ARTICLE	IF	CITATIONS
1	Macroscopic and Multi-Scale Models for Multi-Class Vehicular Dynamics with Uneven Space Occupancy: A Case Study. <i>Axioms</i> , 2021, 10, 102.	1.9	2
2	Managing crowded museums: Visitors flow measurement, analysis, modeling, and optimization. <i>Journal of Computational Science</i> , 2021, 53, 101357.	2.9	31
3	An all-leader agent-based model for turning and flocking birds. <i>Journal of Mathematical Biology</i> , 2021, 83, 45.	1.9	8
4	Understanding Mass Transfer Directions via Data-Driven Models with Application to Mobile Phone Data. <i>SIAM Journal on Applied Dynamical Systems</i> , 2020, 19, 1372-1391.	1.6	5
5	Mathematical Models and Methods for Crowd Dynamics Control. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2020, , 159-197.	0.6	14
6	Robust design optimization for egressing pedestrians in unknown environments. <i>Applied Mathematical Modelling</i> , 2019, 72, 553-568.	4.2	13
7	Empirical Research on Pedestrians's Behavior and Crowd Dynamics. <i>Journal of Advanced Transportation</i> , 2019, 2019, 1-2.	1.7	5
8	Comparing comparisons between vehicular traffic states in microscopic and macroscopic first-order models. <i>Mathematical Methods in the Applied Sciences</i> , 2019, 42, 918-934.	2.3	3
9	An interface-free multi-scale multi-order model for traffic flow. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2019, 24, 6189-6207.	0.9	3
10	Reducing Complexity of Multiagent Systems with Symmetry Breaking: An Application to Opinion Dynamics with Polls. <i>Multiscale Modeling and Simulation</i> , 2018, 16, 528-549.	1.6	12
11	Understanding Human Mobility Flows from Aggregated Mobile Phone Data. <i>IFAC-PapersOnLine</i> , 2018, 51, 25-30.	0.9	20
12	Two algorithms for a fully coupled and consistently macroscopic PDE-ODEsystem modeling a moving bottleneck on a road. <i>Mathematics in Engineering</i> , 2018, 1, 55-83.	0.9	4
13	Sensitivity analysis of the LWR model for traffic forecast on large networks using Wasserstein distance. <i>Communications in Mathematical Sciences</i> , 2018, 16, 123-144.	1.0	3
14	Handling obstacles in pedestrian simulations: Models and optimization. <i>Applied Mathematical Modelling</i> , 2017, 45, 285-302.	4.2	46
15	A level set based method for fixing overhangs in 3D printing. <i>Applied Mathematical Modelling</i> , 2017, 44, 446-455.	4.2	28
16	Blended numerical schemes for the advection equation and conservation laws. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2017, 51, 997-1019.	1.9	3
17	Invisible Control of Self-Organizing Agents Leaving Unknown Environments. <i>SIAM Journal on Applied Mathematics</i> , 2016, 76, 1683-1710.	1.8	80
18	On the micro-to-macro limit for first-order traffic flow models on networks. <i>Networks and Heterogeneous Media</i> , 2016, 11, 395-413.	1.1	17

#	ARTICLE	IF	CITATIONS
19	Modeling Rationality to Control Self-Organization of Crowds: An Environmental Approach. SIAM Journal on Applied Mathematics, 2015, 75, 605-629.	1.8	47
20	Blending Brownian motion and heat equation. Journal of Coupled Systems and Multiscale Dynamics, 2015, 3, 351-356.	0.2	5
21	An Introduction to the Modeling of Crowd Dynamics. Modeling, Simulation and Applications, 2014, , 3-27.	1.3	1
22	An Overview of the Modeling of Crowd Dynamics. Modeling, Simulation and Applications, 2014, , 73-107.	1.3	2
23	Multiscale Modeling by Time-Evolving Measures. Modeling, Simulation and Applications, 2014, , 109-135.	1.3	2
24	Can Local Single-Pass Methods Solve Any Stationary Hamilton-Jacobi-Bellman Equation?. SIAM Journal of Scientific Computing, 2014, 36, A570-A587.	2.8	15
25	Multiscale Modeling of Pedestrian Dynamics. Modeling, Simulation and Applications, 2014, , .	1.3	129
26	An easy-to-use algorithm for simulating traffic flow on networks: Numerical experiments. Discrete and Continuous Dynamical Systems - Series S, 2014, 7, 379-394.	1.1	8
27	An easy-to-use algorithm for simulating traffic flow on networks: Theoretical study. Networks and Heterogeneous Media, 2014, 9, 519-552.	1.1	13
28	Basic Theory of Measure-Based Models. Modeling, Simulation and Applications, 2014, , 137-168.	1.3	0
29	Psychological Insights. Modeling, Simulation and Applications, 2014, , 53-69.	1.3	0
30	Generalizations of the Multiscale Approach. Modeling, Simulation and Applications, 2014, , 195-219.	1.3	0
31	Problems and Simulations. Modeling, Simulation and Applications, 2014, , 29-52.	1.3	0
32	Two Semi-Lagrangian Fast Methods for Hamilton-Jacobi-Bellman Equations. IFIP Advances in Information and Communication Technology, 2014, , 74-84.	0.7	1
33	How can macroscopic models reveal self-organization in traffic flow?. , 2012, , .		10
34	Perspective Shape from Shading: Ambiguity Analysis and Numerical Approximations. SIAM Journal on Imaging Sciences, 2012, 5, 311-342.	2.2	36
35	A Patchy Dynamic Programming Scheme for a Class of Hamilton-Jacobi-Bellman Equations. SIAM Journal of Scientific Computing, 2012, 34, A2625-A2649.	2.8	38
36	Multiscale Modeling of Granular Flows with Application to Crowd Dynamics. Multiscale Modeling and Simulation, 2011, 9, 155-182.	1.6	169

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37	Effects of anisotropic interactions on the structure of animal groups. <i>Journal of Mathematical Biology</i> , 2011, 62, 569-588.	1.9	36
38	An adaptive domain-decomposition technique for parallelization of the fast marching method. <i>Applied Mathematics and Computation</i> , 2011, 218, 32-44.	2.2	20
39	Numerical schemes for advanced reflectance models for Shape from Shading. , 2011, , .		2
40	An Efficient Data Structure and Accurate Scheme to Solve Front Propagation Problems. <i>Journal of Scientific Computing</i> , 2010, 42, 251-273.	2.3	15
41	Initialization of the Shooting Method via the Hamilton-Jacobi-Bellman Approach. <i>Journal of Optimization Theory and Applications</i> , 2010, 146, 321-346.	1.5	36
42	Modeling self-organization in pedestrians and animal groups from macroscopic and microscopic viewpoints. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2010, , 337-364.	0.6	28
43	A Fast Marching Method for Hamilton-Jacobi Equations Modeling Monotone Front Propagations. <i>Journal of Scientific Computing</i> , 2009, 39, 189-205.	2.3	43
44	Fast Semi-Lagrangian Schemes for the Eikonal Equation and Applications. <i>SIAM Journal on Numerical Analysis</i> , 2007, 45, 1979-2011.	2.3	46
45	Two Fast Marching Methods for Hamilton-Jacobi Equations. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2007, 7, 1025001-1025002.	0.2	0