Maurizio Falcone

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4443547/publications.pdf

Version: 2024-02-01

68	1,624	430874	330143
papers	citations	18 h-index	37 g-index

76	76	76	751
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical methods for shape-from-shading: A new survey with benchmarks. Computer Vision and Image Understanding, 2008, 109, 22-43.	4.7	251
2	A numerical approach to the infinite horizon problem of deterministic control theory. Applied Mathematics and Optimization, 1987, 15, 1-13.	1.6	183
3	Convergence Analysis for a Class of High-Order Semi-Lagrangian Advection Schemes. SIAM Journal on Numerical Analysis, 1998, 35, 909-940.	2.3	124
4	Semi-Lagrangian Schemes for Hamiltonâ€“Jacobi Equations, Discrete Representation Formulae and Godunov Methods. Journal of Computational Physics, 2002, 175, 559-575.	3.8	97
5	An approximation scheme for the optimal control of diffusion processes. ESAIM: Mathematical Modelling and Numerical Analysis, 1995, 29, 97-122.	1.9	88
6	An efficient algorithm for Hamiltonâ€“Jacobi equations in high dimension. Computing and Visualization in Science, 2004, 7, 15-29.	1.2	50
7	An Efficient Policy Iteration Algorithm for Dynamic Programming Equations. SIAM Journal of Scientific Computing, 2015, 37, A181-A200.	2.8	48
8	Numerical Methods for Pursuit-Evasion Games via Viscosity Solutions. , 1999, , 105-175.		46
9	Fast Semi-Lagrangian Schemes for the Eikonal Equation and Applications. SIAM Journal on Numerical Analysis, 2007, 45, 1979-2011.	2.3	46
10	Level Sets of Viscosity Solutions: some Applications to Fronts and Rendez-vous Problems. SIAM Journal on Applied Mathematics, 1994, 54, 1335-1354.	1.8	40
11	Uniqueness and Approximation of a Photometric Shape-from-Shading Model. SIAM Journal on Imaging Sciences, 2013, 6, 616-659.	2.2	40
12	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
13	Perspective Shape from Shading: Ambiguity Analysis and Numerical Approximations. SIAM Journal on Imaging Sciences, 2012, 5, 311-342.	2.2	36
14	An Efficient DP Algorithm on a Tree-Structure for Finite Horizon Optimal Control Problems. SIAM Journal of Scientific Computing, 2019, 41, A2384-A2406.	2.8	27
15	Convergence of a Generalized Fast-Marching Method for an Eikonal Equation with a Velocity-Changing Sign. SIAM Journal on Numerical Analysis, 2008, 46, 2920-2952.	2.3	25
16	A splitting algorithm for Hamilton-Jacobi-Bellman equations. Applied Numerical Mathematics, 1994, 15, 207-218.	2.1	24
17	Numerical schemes for conservation laws via Hamilton-Jacobi equations. Mathematics of Computation, 1995, 64, 555-580.	2.1	23
18	Analysis and Approximation of Some Shape-from-Shading Models for Non-Lambertian Surfaces. Journal of Mathematical Imaging and Vision, 2016, 55, 153-178.	1.3	23

#	Article	IF	Citations
19	A Finite-Difference Approximation of a Two-Layer System for Growing Sandpiles. SIAM Journal of Scientific Computing, 2006, 28, 1120-1132.	2.8	22
20	An Approximation Scheme for Evolutive Hamilton-Jacobi Equations. , 1999, , 289-303.		20
21	Corrigenda: A numerical approach to the infinite horizon problem of deterministic control theory. Applied Mathematics and Optimization, 1991, 23, 213-214.	1.6	19
22	An Efficient Filtered Scheme for Some First Order Time-Dependent Hamilton--Jacobi Equations. SIAM Journal of Scientific Computing, 2016, 38, A171-A195.	2.8	17
23	Convergence of Discrete Schemes for Discontinuous Value Functions of Pursuit-Evasion Games. , 1995, , 273-304.		17
24	Slow and Quasi-slow solutions of differential inclusions. Nonlinear Analysis: Theory, Methods & Applications, 1987, 11, 367-377.	1.1	16
25	Value iteration convergence of $epsilon$-monotone schemes for stationary Hamilton-Jacobi equations. Discrete and Continuous Dynamical Systems, 2015, 35, 4041-4070.	0.9	16
26	Can Local Single-Pass Methods Solve Any Stationary Hamilton--Jacobi--Bellman Equation?. SIAM Journal of Scientific Computing, 2014, 36, A570-A587.	2.8	15
27	Fully-Discrete Schemes for the Value Function of Pursuit-Evasion Games with State Constraints. , 2009, , 1-30.		14
28	Approximation of control problems involving ordinary and impulsive controls. ESAIM - Control, Optimisation and Calculus of Variations, 1999, 4, 159-176.	1.3	11
29	A semi-Lagrangian scheme for the game p-Laplacian via p-averaging. Applied Numerical Mathematics, 2013, 73, 63-80.	2.1	11
30	A High-Order Scheme for Image Segmentation via a Modified Level-Set Method. SIAM Journal on Imaging Sciences, 2020, 13, 497-534.	2.2	11
31	An Adaptive POD Approximation Method for the Control of Advection-Diffusion Equations. International Series of Numerical Mathematics, 2013, , 1-17.	1.1	11
32	Approximation of Optimal Control Problems with State Constraints: Estimates and Applications. The IMA Volumes in Mathematics and Its Applications, 1996, , 23-57.	0.5	8
33	Numerical approximation for a visibility based pursuit-evasion game. , 2014, , .		6
34	A Comparison of Non-Lambertian Models for the Shape-from-Shading Problem. Mathematics and Visualization, 2016, , 15-42.	0.6	6
35	ANALYSIS AND COMPARISON OF TWO APPROXIMATION SCHEMES FOR A RADIATIVE TRANSFER SYSTEM. Mathematical Models and Methods in Applied Sciences, 2003, 13, 159-186.	3.3	5
36	A Generalized Fast Marching Method on Unstructured Triangular Meshes. SIAM Journal on Numerical Analysis, 2013, 51, 2999-3035.	2.3	5

#	Article	IF	Citations
37	Surveillance for Security as a Pursuit-Evasion Game. Lecture Notes in Computer Science, 2014, , 370-379.	1.3	5
38	A semi-Lagrangian scheme for mean curvature motion with nonlinear Neumann conditions. Interfaces and Free Boundaries, 2013, 14, 455-485.	0.8	5
39	A semi-Lagrangian scheme for the curve shortening flow in codimension-2. Journal of Computational Physics, 2007, 225, 1388-1408.	3.8	4
40	An Approximation Scheme for an Eikonal Equation with Discontinuous Coefficient. SIAM Journal on Numerical Analysis, 2014, 52, 236-257.	2.3	4
41	A HJB-POD feedback synthesis approach for the wave equation. Bulletin of the Brazilian Mathematical Society, 2016, 47, 51-64.	0.8	4
42	A High-Order Semi-Lagrangian/Finite Volume Scheme for Hamilton-Jacobi-Isaacs Equations. IFIP Advances in Information and Communication Technology, 2014, , 105-117.	0.7	4
43	Convergence of the Value Function in Optimal Control Problems with Unknown Dynamics. , 2021, , .		4
44	Qualitative and numerical analysis of a class of prey-predator models. Acta Applicandae Mathematicae, 1985, 4, 225-258.	1.0	3
45	Adaptive Filtered Schemes for First Order Hamilton-Jacobi Equations. Lecture Notes in Computational Science and Engineering, 2019, , 389-398.	0.3	3
46	Convergence results for an averaged LQR problem with applications to reinforcement learning. Mathematics of Control, Signals, and Systems, 2021, 33, 379-411.	2.3	3
47	Numerical Solution of the Perspective Shape-from-Shading Problem. , 2006, , .		3
48	A Comprehensive Introduction to Photometric 3D-Reconstruction. Advances in Computer Vision and Pattern Recognition, 2020, , 1-29.	1.3	3
49	An Efficient Policy Iteration Algorithm for Dynamic Programming Equations. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 467-468.	0.2	2
50	High-order approximation of the finite horizon control problem via a tree structure algorithm. IFAC-PapersOnLine, 2019, 52, 19-24.	0.9	2
51	Multidimensional smoothness indicators for first-order Hamilton-Jacobi equations. Journal of Computational Physics, 2020, 409, 109360.	3.8	2
52	Parallel Algorithms for the Isaacs Equation. , 2001, , 203-223.		2
53	Optimization techniques for the computation of the effective Hamiltonian. , 2010, , 225-236.		2
54	Recent Results in the Approximation of Nonlinear Optimal Control Problems. Lecture Notes in Computer Science, 2014, , 15-32.	1.3	2

#	Article	IF	Citations
55	Advances in Parallel Algorithms for the Isaacs Equation. , 2005, , 515-544.		1
56	Convergence of adaptive filtered schemes for first order evolutionary Hamiltonâ€“Jacobi equations. Numerische Mathematik, 2020, 145, 271-311.	1.9	1
57	Coupling MPC and HJB for the Computation of POD-Based Feedback Laws. Lecture Notes in Computational Science and Engineering, 2019, , 941-949.	0.3	1
58	A dynamic domain decomposition for the eikonal-diffusion equation. Discrete and Continuous Dynamical Systems - Series S, 2016, 9, 109-123.	1.1	1
59	Two Semi-Lagrangian Fast Methods for Hamilton-Jacobi-Bellman Equations. IFIP Advances in Information and Communication Technology, 2014, , 74-84.	0.7	1
60	Numerical Techniques for Level Set Models: an Image Segmentation Perspective. , 2019, , 135-156.		1
61	Two Fast Marching Methods for Hamiltonâ€“Jacobi Equations. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1025001-1025002.	0.2	0
62	Special Issue dedicated to Numerical Methods for Viscosity Solutions and Applications. Applied Numerical Mathematics, 2013, 73, 1.	2.1	0
63	Recent Results in Shape Optimization and Optimal Control for PDEs. Lecture Notes in Computational Science and Engineering, 2014, , 65-94.	0.3	0
64	Preface: DGAA Special Issue on Numerical Methods for Dynamic Games. Dynamic Games and Applications, 2017, 7, 531-534.	1.9	0
65	An Accelerated Value/Policy Iteration Scheme for Optimal Control Problems and Games. Lecture Notes in Computational Science and Engineering, 2015, , 489-497.	0.3	0
66	Photos, Objects and Computer Vision. , 2015, , 271-282.		0
67	A HJB-POD Approach to the Control of the Level Set Equation. Modeling, Simulation and Applications, 2017, , 317-331.	1.3	0
68	On the Segmentation of Astronomical Images via Level-Set Methods. Springer INdAM Series, 2019, , 141-166.	0.5	0