Peng Zhang

List of Publications by Year
in descending order

47	1,567	331670	302126
papers	citations	21 h-index	39 g-index

48	48	48	898
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An Aggregation Approach to Short-Term Traffic Flow Prediction. IEEE Transactions on Intelligent Transportation Systems, 2009, 10, 60-69.	8.0	271
2	Bidirectional Pedestrian Stream Model with Oblique Intersecting Angle. Journal of Transportation Engineering, 2010, 136, 234-242.	0.9	120
3	A higher-order macroscopic model for pedestrian flows. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 4623-4635.	2.6	108
4	Potential field cellular automata model for pedestrian flow. Physical Review E, 2012, 85, 021119.	2.1	80
5	A weighted essentially non-oscillatory numerical scheme for a multi-class traffic flow model on an inhomogeneous highway. Journal of Computational Physics, 2006, 212, 739-756.	3.8	76
6	A microscopic pedestrian-simulation model and its application to intersecting flows. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 515-526.	2.6	68
7	Essence of conservation forms in the traveling wave solutions of higher-order traffic flow models. Physical Review E, 2006, 74, 026109.	2.1	64
8	Hyperbolicity and kinematic waves of a class of multi-population partial differential equations. European Journal of Applied Mathematics, 2006, 17, 171.	2.9	62
9	A conserved higher-order anisotropic traffic flow model: Description of equilibrium and non-equilibrium flows. Transportation Research Part B: Methodological, 2009, 43, 562-574.	5.9	60
10	Perceived cost potential field cellular automata model with an aggregated force field for pedestrian dynamics. Transportation Research Part C: Emerging Technologies, 2014, 42, 200-210.	7.6	54
11	A dynamic traffic assignment model for a continuum transportation system. Transportation Research Part B: Methodological, 2011, 45, 343-363.	5.9	52
12	A reactive dynamic continuum user equilibrium model for bi-directional pedestrian flows. Acta Mathematica Scientia, 2009, 29, 1541-1555.	1.0	50
13	Macroscopic modeling of laneâ€changing for twoâ€lane traffic flow. Journal of Advanced Transportation, 2009, 43, 245-273.	1.7	49
14	A semi-discrete model and its approach to a solution for a wide moving jam in traffic flow. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 456-463.	2.6	45
15	A Macroscopic Approach to the Lane Formation Phenomenon in Pedestrian Counterflow. Chinese Physics Letters, 2011, 28, 108901.	3.3	38
16	High-resolution numerical approximation of traffic flow problems with variable lanes and free-flow velocities. Physical Review E, 2005, 71, 056704.	2.1	37
17	Hyperbolic conservation laws with space-dependent fluxes: II. General study of numerical fluxes. Journal of Computational and Applied Mathematics, 2005, 176, 105-129.	2.0	29
18	Admissibility of a Wide Cluster Solution in â€œAnisotropicâ€•Higher-Order Traffic Flow Models. SIAM Journal on Applied Mathematics, 2007, 68, 562-573.	1.8	28

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19	Hyperbolic conservation laws with space-dependent flux: I. Characteristics theory and Riemann problem. Journal of Computational and Applied Mathematics, 2003, 156, 1-21.	2.0	25
20	A hybrid scheme for solving a multi-class traffic flow model with complex wave breaking. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 3816-3827.	6.6	25
21	Nonlinear Analysis in the Awâ€“Rascle Anticipation Model of Traffic Flow. SIAM Journal on Applied Mathematics, 2007, 67, 605-618.	1.8	24
22	Empirical evidence for taxi customer-search model. Proceedings of the Institution of Civil Engineers: Transport, 2010, 163, 203-210.	0.6	21
23	High-Order Computational Scheme for a Dynamic Continuum Model for Bi-Directional Pedestrian Flows. Computer-Aided Civil and Infrastructure Engineering, 2011, 26, 298-310.	9.8	21
24	Generalization of Runge-Kutta discontinuous Galerkin method to LWR traffic flow model with inhomogeneous road conditions. Numerical Methods for Partial Differential Equations, 2005, 21, 80-88.	3.6	17
25	Steady-state traffic flow on a ring road with up- and down-slopes. Physica A: Statistical Mechanics and Its Applications, 2014, 403, 85-93.	2.6	13
26	A macroscopic traffic flow model considering the velocity difference between adjacent vehicles on uphill and downhill slopes. Modern Physics Letters B, 2020, 34, 2050217.	1.9	12
27	Potential field cellular automata model for overcrowded pedestrian flow. Transportmetrica A: Transport Science, 2020, 16, 749-775.	2.0	12
28	Phase-plane analysis of conserved higher-order traffic flow model. Applied Mathematics and Mechanics (English Edition), 2012, 33, 1505-1512.	3.6	11
29	Solitary wave solution to Aw-Rascle viscous model of traffic flow. Applied Mathematics and Mechanics (English Edition), 2013, 34, 523-528.	3.6	11
30	Dynamic Continuum Model with Elastic Demand for a Polycentric Urban City. Transportation Science, 2017, 51, 931-945.	4.4	11
31	A Rungeâ€“Kutta discontinuous Galerkin scheme for hyperbolic conservation laws with discontinuous fluxes. Applied Mathematics and Computation, 2017, 292, 309-319.	2.2	9
32	Numerical simulation of a continuum model for bi-directional pedestrian flow. Applied Mathematics and Computation, 2011, 218, 6135-6135.	2.2	8
33	A note on the weighted essentially nonâ€oscillatory numerical scheme for a multiâ€class Lighthillâ€“Whithamâ€“Richards traffic flow model. Communications in Numerical Methods in Engineering, 2009, 25, 1120-1126.	1.3	7
34	Î´-mapping algorithm coupled with WENO reconstruction for nonlinear elasticity in heterogeneous media. Applied Numerical Mathematics, 2007, 57, 103-116.	2.1	6
35	A shock-fitting algorithm for the Lighthillâ€“Whithamâ€“Richards model on inhomogeneous highways. Transportmetrica, 2011, 7, 163-180.	1.8	6
36	Discontinuous Galerkin finite element scheme for a conserved higher-order traffic flow model by exploring Riemann solvers. Applied Mathematics and Computation, 2014, 244, 567-576.	2.2	6

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37	Modeling and simulation of pedestrian flow through hydrodynamics. Procedia Engineering, 2012, 31, 1039-1044.	1.2	5
38	Conservation form of Helbingâ€™s fluid dynamic traffic flow model. Applied Mathematics and Mechanics (English Edition), 2011, 32, 1109-1118.	3.6	4
39	A Number of Riemann Solvers for a Conserved Higher-Order Traffic Flow Model. , 2011, , .		4
40	A Predictive Continuum Dynamic User-Optimal Model for the Simultaneous Departure Time and Route Choice Problem in a Polycentric City. Transportation Science, 2018, 52, 1496-1508.	4.4	4
41	Kinetic description of bottleneck effects in traffic flow. Applied Mathematics and Mechanics (English) Tj ETQq1 1 0.784314 rgBT /Ove	3.6	3
42	Macroscopic Simulation of Pedestrian Flow through a Bottleneck. Applied Mechanics and Materials, 0, 97-98, 1168-1175.	0.2	3
43	Solitary wave solution to a class of higher-order viscous traffic flow model. International Journal of Modern Physics B, 2017, 31, 1750099.	2.0	3
44	Î´-mapping algorithm and its application in traffic flow problems with inhomogeneities. Journal of Shanghai University, 2003, 7, 315-317.	0.1	2
45	Riemann solvers of a conserved high-order traffic flow model with discontinuous fluxes. Applied Mathematics and Computation, 2022, 413, 126648.	2.2	1
46	Steady-state solution of traffic flow on a simple road network. Journal of Hydrodynamics, 2021, 33, 950-957.	3.2	1
47	Solitary wave solutions to higher-order traffic flow model with large diffusion. Applied Mathematics and Mechanics (English Edition), 2014, 35, 167-176.	3.6	0