Xuesong Zhou

List of Publications by Year in descending order

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103 papers	6,001 citations	57758 44 h-index	76900 74 g-index
104 all docs	104 docs citations	104 times ranked	3182 citing authors

#	Article	IF	Citations
1	Optimizing urban rail timetable under time-dependent demand and oversaturated conditions. Transportation Research Part C: Emerging Technologies, 2013, 36, 212-230.	7.6	370
2	Train scheduling for minimizing passenger waiting time with time-dependent demand and skip-stop patterns: Nonlinear integer programming models with linear constraints. Transportation Research Part B: Methodological, 2015, 76, 117-135.	5.9	334
3	Single-track train timetabling with guaranteed optimality: Branch-and-bound algorithms with enhanced lower bounds. Transportation Research Part B: Methodological, 2007, 41, 320-341.	5.9	243
4	Finding optimal solutions for vehicle routing problem with pickup and delivery services with time windows: A dynamic programming approach based on stateâ€“spaceâ€“time network representations. Transportation Research Part B: Methodological, 2016, 89, 19-42.	5.9	226
5	Simultaneous train rerouting and rescheduling on an N-track network: A model reformulation with network-based cumulative flow variables. Transportation Research Part B: Methodological, 2014, 67, 208-234.	5.9	214
6	Robust single-track train dispatching model under a dynamic and stochastic environment: A scenario-based rolling horizon solution approach. Transportation Research Part B: Methodological, 2011, 45, 1080-1102.	5.9	179
7	Bicriteria train scheduling for high-speed passenger railroad planning applications. European Journal of Operational Research, 2005, 167, 752-771.	5.7	170
8	Dynamic Originâ€“Destination Demand Estimation Using Automatic Vehicle Identification Data. IEEE Transactions on Intelligent Transportation Systems, 2006, 7, 105-114.	8.0	160
9	Customized bus service design for jointly optimizing passenger-to-vehicle assignment and vehicle routing. Transportation Research Part C: Emerging Technologies, 2017, 85, 451-475.	7.6	141
10	A structural state space model for real-time traffic originâ€“destination demand estimation and prediction in a day-to-day learning framework. Transportation Research Part B: Methodological, 2007, 41, 823-840.	5.9	138
11	Trajectory data-based traffic flow studies: A revisit. Transportation Research Part C: Emerging Technologies, 2020, 114, 225-240.	7.6	128
12	Transportation network design for maximizing spaceâ€“time accessibility. Transportation Research Part B: Methodological, 2015, 81, 555-576.	5.9	125
13	Green logistics location-routing problem with eco-packages. Transportation Research, Part E: Logistics and Transportation Review, 2020, 143, 102118.	7.4	118
14	DTALite: A queue-based mesoscopic traffic simulator for fast model evaluation and calibration. Cogent Engineering, 2014, 1, 961345.	2.2	113
15	Constraint reformulation and a Lagrangian relaxation-based solution algorithm for a least expected time path problem. Transportation Research Part B: Methodological, 2014, 59, 22-44.	5.9	112
16	Joint optimization of high-speed train timetables and speed profiles: A unified modeling approach using space-time-speed grid networks. Transportation Research Part B: Methodological, 2017, 97, 157-181.	5.9	110
17	Traffic zone division based on big data from mobile phone base stations. Transportation Research Part C: Emerging Technologies, 2015, 58, 278-291.	7.6	109
18	Finding the most reliable path with and without link travel time correlation: A Lagrangian substitution based approach. Transportation Research Part B: Methodological, 2011, 45, 1660-1679.	5.9	105

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19	Traffic state estimation and uncertainty quantification based on heterogeneous data sources: A three detector approach. Transportation Research Part B: Methodological, 2013, 57, 132-157.	5.9	100
20	Yard crane and AGV scheduling in automated container terminal: A multi-robot task allocation framework. Transportation Research Part C: Emerging Technologies, 2020, 114, 241-271.	7.6	97
21	Dynamic programming-based multi-vehicle longitudinal trajectory optimization with simplified car following models. Transportation Research Part B: Methodological, 2017, 106, 102-129.	5.9	96
22	An Information-Theoretic Sensor Location Model for Traffic Origin-Destination Demand Estimation Applications. Transportation Science, 2010, 44, 254-273.	4.4	85
23	Credibility-based rescheduling model in a double-track railway network: a fuzzy reliable optimization approach. Omega, 2014, 48, 75-93.	5.9	85
24	Method for investigating intradriver heterogeneity using vehicle trajectory data: A Dynamic Time Warping approach. Transportation Research Part B: Methodological, 2015, 73, 59-80.	5.9	85
25	Dynamic originâ€“destination demand flow estimation under congested traffic conditions. Transportation Research Part C: Emerging Technologies, 2013, 34, 16-37.	7.6	84
26	Integrating a simplified emission estimation model and mesoscopic dynamic traffic simulator to efficiently evaluate emission impacts of traffic management strategies. Transportation Research, Part D: Transport and Environment, 2015, 37, 123-136.	6.8	81
27	Optimizing on-time arrival probability and percentile travel time for elementary path finding in time-dependent transportation networks: Linear mixed integer programming reformulations. Transportation Research Part B: Methodological, 2017, 96, 68-91.	5.9	78
28	Solving cyclic train timetabling problem through model reformulation: Extended time-space network construct and Alternating Direction Method of Multipliers methods. Transportation Research Part B: Methodological, 2019, 128, 344-379.	5.9	77
29	Capacitated transit service network design with boundedly rational agents. Transportation Research Part B: Methodological, 2016, 93, 225-250.	5.9	74
30	Recasting and optimizing intersection automation as a connected-and-automated-vehicle (CAV) scheduling problem: A sequential branch-and-bound search approach in phase-time-traffic hypernetwork. Transportation Research Part B: Methodological, 2017, 105, 479-506.	5.9	69
31	ADMM-based problem decomposition scheme for vehicle routing problem with time windows. Transportation Research Part B: Methodological, 2019, 129, 156-174.	5.9	68
32	Equivalent gap function-based reformulation and solution algorithm for the dynamic user equilibrium problem. Transportation Research Part B: Methodological, 2009, 43, 345-364.	5.9	66
33	Hierarchical travel demand estimation using multiple data sources: A forward and backward propagation algorithmic framework on a layered computational graph. Transportation Research Part C: Emerging Technologies, 2018, 96, 321-346.	7.6	66
34	Integrating Lagrangian and Eulerian observations for passenger flow state estimation in an urban rail transit network: A space-time-state hyper network-based assignment approach. Transportation Research Part B: Methodological, 2019, 121, 135-167.	5.9	66
35	A bi-criterion dynamic user equilibrium traffic assignment model and solution algorithm for evaluating dynamic road pricing strategies. Transportation Research Part C: Emerging Technologies, 2008, 16, 371-389.	7.6	65
36	Dynamic Origin-Destination Demand Estimation with Multiday Link Traffic Counts for Planning Applications. Transportation Research Record, 2003, 1831, 30-38.	1.9	61

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37	Operational design for shuttle systems with modular vehicles under oversaturated traffic: Discrete modeling method. Transportation Research Part B: Methodological, 2019, 122, 1-19.	5.9	60
38	Demand-Driven Train Schedule Synchronization for High-Speed Rail Lines. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 2642-2652.	8.0	58
39	Solving simultaneous route guidance and traffic signal optimization problem using space-phase-time hypernetwork. Transportation Research Part B: Methodological, 2015, 81, 103-130.	5.9	53
40	Coordinating assignment and routing decisions in transit vehicle schedules: A variable-splitting Lagrangian decomposition approach for solution symmetry breaking. Transportation Research Part B: Methodological, 2018, 107, 70-101.	5.9	51
41	An integrated train service plan optimization model with variable demand: A team-based scheduling approach with dual cost information in a layered network. Transportation Research Part B: Methodological, 2019, 125, 1-28.	5.9	48
42	Estimating the most likely spaceâ€“time paths, dwell times and path uncertainties from vehicle trajectory data: A time geographic method. Transportation Research Part C: Emerging Technologies, 2016, 66, 176-194.	7.6	46
43	Designing heterogeneous sensor networks for estimating and predicting path travel time dynamics: An information-theoretic modeling approach. Transportation Research Part B: Methodological, 2013, 57, 66-90.	5.9	45
44	Survey on Driverless Train Operation for Urban Rail Transit Systems. Urban Rail Transit, 2016, 2, 106-113.	1.8	45
45	Personalized real-time traffic information provision: Agent-based optimization model and solution framework. Transportation Research Part C: Emerging Technologies, 2016, 64, 164-182.	7.6	45
46	Operational design for shuttle systems with modular vehicles under oversaturated traffic: Continuous modeling method. Transportation Research Part B: Methodological, 2020, 132, 76-100.	5.9	44
47	Eco-system optimal time-dependent flow assignment in a congested network. Transportation Research Part B: Methodological, 2016, 94, 217-239.	5.9	41
48	Domain adaptation from daytime to nighttime: A situation-sensitive vehicle detection and traffic flow parameter estimation framework. Transportation Research Part C: Emerging Technologies, 2021, 124, 102946.	7.6	41
49	Evacuation planning for disaster responses: A stochastic programming framework. Transportation Research Part C: Emerging Technologies, 2016, 69, 150-172.	7.6	39
50	Reformulation and Solution Algorithms for Absolute and Percentile Robust Shortest Path Problems. IEEE Transactions on Intelligent Transportation Systems, 2013, 14, 943-954.	8.0	38
51	A stepwise interpretable machine learning framework using linear regression (LR) and long short-term memory (LSTM): City-wide demand-side prediction of yellow taxi and for-hire vehicle (FHV) service. Transportation Research Part C: Emerging Technologies, 2020, 120, 102786.	7.6	38
52	Estimating risk effects of driving distraction: A dynamic errorable car-following model. Transportation Research Part C: Emerging Technologies, 2015, 50, 117-129.	7.6	36
53	A comprehensive modeling framework for transportation-induced population exposure assessment. Transportation Research, Part D: Transport and Environment, 2016, 46, 94-113.	6.8	36
54	Smart Urban Transit Systems: From Integrated Framework to Interdisciplinary Perspective. Urban Rail Transit, 2018, 4, 49-67.	1.8	33

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55	A mixed integer programming model for optimizing multi-level operations process in railroad yards. Transportation Research Part B: Methodological, 2015, 80, 19-39.	5.9	29
56	Integrated line planning and train timetabling through price-based cross-resolution feedback mechanism. Transportation Research Part B: Methodological, 2022, 155, 240-277.	5.9	29
57	Quantifying travel time variability at a single bottleneck based on stochastic capacity and demand distributions. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2017, 21, 79-93.	4.2	28
58	Number and Location of Sensors for Real-Time Network Traffic Estimation and Prediction: Sensitivity Analysis. Transportation Research Record, 2006, 1964, 253-259.	1.9	28
59	Incorporating Stochastic Road Capacity into Day-to-Day Traffic Simulation and Traveler Learning Framework. Transportation Research Record, 2011, 2254, 112-121.	1.9	27
60	A Space-Time Network-Based Modeling Framework for Dynamic Unmanned Aerial Vehicle Routing in Traffic Incident Monitoring Applications. Sensors, 2015, 15, 13874-13898.	3.8	26
61	Open-source VRPLite Package for Vehicle Routing with Pickup and Delivery: A Path Finding Engine for Scheduled Transportation Systems. Urban Rail Transit, 2018, 4, 68-85.	1.8	26
62	A mixed integer programming formulation and scalable solution algorithms for traffic control coordination across multiple intersections based on vehicle space-time trajectories. Transportation Research Part B: Methodological, 2020, 134, 266-304.	5.9	25
63	Short-Term Highway Traffic State Prediction Using Structural State Space Models. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2014, 18, 309-322.	4.2	24
64	Large-scale dynamic transportation network simulation: A space-time-event parallel computing approach. Transportation Research Part C: Emerging Technologies, 2017, 75, 1-16.	7.6	24
65	A cumulative service state representation for the pickup and delivery problem with transfers. Transportation Research Part B: Methodological, 2019, 129, 351-380.	5.9	24
66	Open-Source Public Transportation Mobility Simulation Engine DTALite-S: A Discretized Spaceâ€“Time Network-Based Modeling Framework for Bridging Multi-agent Simulation and Optimization. Urban Rail Transit, 2019, 5, 1-16.	1.8	24
67	Modeling Visit Probabilities within Networkâ€Time Prisms Using <scp>M</scp>arkov Techniques. Geographical Analysis, 2016, 48, 18-42.	3.5	23
68	Integrated vehicle assignment and routing for system-optimal shared mobility planning with endogenous road congestion. Transportation Research Part C: Emerging Technologies, 2020, 117, 102675.	7.6	23
69	A Review of Big Data Applications in Urban Transit Systems. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 2535-2552.	8.0	23
70	How Many and Where to Locate Parking Lots? A Spaceâ€“time Accessibility-Maximization Modeling Framework for Special Event Traffic Management. Urban Rail Transit, 2016, 2, 59-70.	1.8	21
71	Optimizing resource recharging location-routing plans: A resource-space-time network modeling framework for railway locomotive refueling applications. Computers and Industrial Engineering, 2019, 127, 1241-1258.	6.3	21
72	Automatic train regulation of complex metro networks with transfer coordination constraints: A distributed optimal control framework. Transportation Research Part B: Methodological, 2018, 117, 228-253.	5.9	20

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73	Accessibility with time and resource constraints: Computing hyper-prisms for sustainable transportation planning. Computers, Environment and Urban Systems, 2019, 73, 171-183.	7.1	19
74	A Train Dispatching Model Under a Stochastic Environment: Stable Train Routing Constraints and Reformulation. Networks and Spatial Economics, 2016, 16, 791-820.	1.6	17
75	Multi-scenario optimization approach for assessing the impacts of advanced traffic information under realistic stochastic capacity distributions. Transportation Research Part C: Emerging Technologies, 2017, 77, 113-133.	7.6	17
76	Green accessibility: Estimating the environmental costs of network-time prisms for sustainable transportation planning. Journal of Transport Geography, 2017, 64, 109-119.	5.0	17
77	Observability quantification of public transportation systems with heterogeneous data sources: An information-space projection approach based on discretized space-time network flow models. Transportation Research Part B: Methodological, 2019, 128, 302-323.	5.9	14
78	Solving the time-dependent multi-trip vehicle routing problem with time windows and an improved travel speed model by a hybrid solution algorithm. Cluster Computing, 2019, 22, 15459-15470.	5.0	14
79	Network-oriented household activity pattern problem for system optimization. Transportation Research Part C: Emerging Technologies, 2018, 94, 250-269.	7.6	13
80	Analyzing the Impact of Traffic Congestion Mitigation: From an Explainable Neural Network Learning Framework to Marginal Effect Analyses. Sensors, 2019, 19, 2254.	3.8	13
81	Two-phase optimization model for ride-sharing with transfers in short-notice evacuations. Transportation Research Part C: Emerging Technologies, 2020, 114, 272-296.	7.6	13
82	Dynamic Origin-Destination Trip Demand Estimation for Subarea Analysis. Transportation Research Record, 2006, 1964, 176-184.	1.9	12
83	Synchronizing time-dependent transportation services: Reformulation and solution algorithm using quadratic assignment problem. Transportation Research Part B: Methodological, 2021, 152, 140-179.	5.9	12
84	Use of Spatiotemporal Constraints to Quantify Transit Accessibility. Transportation Research Record, 2014, 2417, 130-138.	1.9	11
85	Balancing a oneâ€way corridor capacity and safetyâ€oriented reliability: A stochastic optimization approach for metro train timetabling. Naval Research Logistics, 2019, 66, 297-320.	2.2	11
86	Integration of signal timing estimation model and dynamic traffic assignment in feedback loops: system design and case study. Journal of Advanced Transportation, 2015, 49, 683-699.	1.7	9
87	Eco-reliable path finding in time-variant and stochastic networks. Energy, 2017, 121, 372-387.	8.8	9
88	Detecting phoneâ€related pedestrian distracted behaviours via a twoâ€branch convolutional neural network. IET Intelligent Transport Systems, 2021, 15, 147-158.	3.0	8
89	Network-oriented Household Activity Pattern Problem for System Optimization. Transportation Research Procedia, 2017, 23, 827-847.	1.5	7
90	How many trip requests could we support? An activity-travel based vehicle scheduling approach. Transportation Research Part C: Emerging Technologies, 2021, 128, 103222.	7.6	6

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91	Hierarchical Multiresolution Traffic Simulator for Metropolitan Areas. Transportation Research Record, 2015, 2497, 63-72.	1.9	4
92	Linear Programming Model for Estimating High-Resolution Freeway Traffic States from Vehicle Identification and Location Data. Transportation Research Record, 2014, 2421, 151-160.	1.9	3
93	Characterizing corridor-level travel time distributions based on stochastic flows and segment capacities. Cogent Engineering, 2015, 2, 990672.	2.2	3
94	Computational graph-based framework for integrating econometric models and machine learning algorithms in emerging data-driven analytical environments. Transportmetrica A: Transport Science, 2022, 18, 1346-1375.	2.0	3
95	Analytical characterization of multi-state effective discharge rates for bus-only lane conversion scheduling problem. Transportation Research Part B: Methodological, 2021, 148, 106-131.	5.9	3
96	Managed gating control strategy for emergency evacuation. Transportmetrica A: Transport Science, 2019, 15, 963-992.	2.0	2
97	Operational design for shuttle systems with modular vehicles under oversaturated traffic: Continuous modeling method. Transportation Research Procedia, 2019, 38, 359-379.	1.5	2
98	Study on High-Speed Railway Emergency Spare Locomotive Deployment Scheme. , 2020, , .		1
99	Fast train: A computationally efficient train routing and scheduling engine for general rail networks. , 2014, , .		0
100	A method of road traffic state acquisition based on wireless sensor networks. , 2014, , .		0
101	Kinematic wave-oriented Markov Chain model to capture the spatiotemporal correlations of coupled traffic states. , 2019, , .		0
102	A Cooperative Scheduling Framework for Shared Transportation Services. , 2019, , .		0
103	Finding robust and consistent space-time delivery paths for multi-day vehicle routing problem*. , 2019, , .		0