Daniel B Work

List of Publications by Year
in descending order

73 papers	3,117 citations	361296 20 h-index	265120 42 g-index
75 all docs	75 docs citations	75 times ranked	2499 citing authors

#	Article	IF	Citations
1	Evaluation of traffic data obtained via GPS-enabled mobile phones: The Mobile Century field experiment. Transportation Research Part C: Emerging Technologies, 2010, 18, 568-583.	3.9	713
2	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
3	Virtual trip lines for distributed privacy-preserving traffic monitoring. , 2008, , .		249
4	An ensemble Kalman filtering approach to highway traffic estimation using GPS enabled mobile devices. , 2008, , .		154
5	Are Commercially Implemented Adaptive Cruise Control Systems String Stable?. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 6992-7003.	4.7	117
6	Empirically quantifying city-scale transportation system resilience to extreme events. Transportation Research Part C: Emerging Technologies, 2017, 79, 333-346.	3.9	107
7	Stabilizing traffic flow via a single autonomous vehicle: Possibilities and limitations. , 2017, , .		89
8	Model-Based String Stability of Adaptive Cruise Control Systems Using Field Data. IEEE Transactions on Intelligent Vehicles, 2020, 5, 90-99.	9.4	84
9	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
10	A General Phase Transition Model for Vehicular Traffic. SIAM Journal on Applied Mathematics, 2011, 71, 107-127.	0.8	78
11	Enhancing Privacy and Accuracy in Probe Vehicle-Based Traffic Monitoring via Virtual Trip Lines. IEEE Transactions on Mobile Computing, 2012, 11, 849-864.	3.9	71
12	Prediction of arrival times of freight traffic on US railroads using support vector regression. Transportation Research Part C: Emerging Technologies, 2018, 93, 211-227.	3.9	64
13	Comparing traffic state estimators for mixed human and automated traffic flows. Transportation Research Part C: Emerging Technologies, 2017, 78, 95-110.	3.9	63
14	GPS Signal Authentication From Cooperative Peers. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 1794-1805.	4.7	61
15	Accelerated Monte Carlo system reliability analysis through machine-learning-based surrogate models of network connectivity. Reliability Engineering and System Safety, 2017, 164, 1-9.	5.1	54
16	A Heterogeneous Multiclass Traffic Flow Model with Creeping. SIAM Journal on Applied Mathematics, 2015, 75, 813-835.	0.8	48
17	On sequential data assimilation for scalar macroscopic traffic flow models. Physica D: Nonlinear Phenomena, 2012, 241, 1421-1440.	1.3	46
18	Multiple Model Particle Filter for Traffic Estimation and Incident Detection. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 3461-3470.	4.7	43

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19	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
20	A text mining framework for advancing sustainability indicators. Environmental Modelling and Software, 2014, 62, 128-138.	1.9	37
21	Efficient multiple model particle filtering for joint traffic state estimation and incident detection. Transportation Research Part C: Emerging Technologies, 2016, 71, 521-537.	3.9	29
22	Lagrangian sensing: traffic estimation with mobile devices. , 2009, , .		26
23	Phase transition model of non-stationary traffic flow: Definition, properties and solution method. Transportation Research Part B: Methodological, 2013, 52, 31-55.	2.8	25
24	Modeling adaptive cruise control vehicles from experimental data: model comparison. , 2019, , .		22
25	Online Parameter Estimation Methods for Adaptive Cruise Control Systems. IEEE Transactions on Intelligent Vehicles, 2021, 6, 288-298.	9.4	22
26	Convex Formulations of Air Traffic Flow Optimization Problems. Proceedings of the IEEE, 2008, 96, 2096-2112.	16.4	21
27	Data Driven Approaches for Passenger Train Delay Estimation. , 2015, , .		19
28	Feedback Control Algorithms for the Dissipation of Traffic Waves with Autonomous Vehicles. Springer Optimization and Its Applications, 2019, , 275-299.	0.6	18
29	A distributed local Kalman consensus filter for traffic estimation. , 2014, , .		17
30	Application of robust optimization in matrix-based LCI for decision making under uncertainty. International Journal of Life Cycle Assessment, 2014, 19, 1110-1118.	2.2	17
31	Traffic Reconstruction Using Autonomous Vehicles. SIAM Journal on Applied Mathematics, 2019, 79, 1748-1767.	0.8	16
32	Scaling the Kalman Filter for Large-Scale Traffic Estimation. IEEE Transactions on Control of Network Systems, 2018, 5, 968-980.	2.4	15
33	Tracking the Evolution of Infrastructure Systems and Mass Responses Using Publically Available Data. PLoS ONE, 2016, 11, e0167267.	1.1	15
34	City-to-City and Temporal Assessment of Peer City Scooter Policy. Transportation Research Record, 2020, 2674, 219-232.	1.0	14
35	Robust Tensor Recovery with Fiber Outliers for Traffic Events. ACM Transactions on Knowledge Discovery From Data, 2021, 15, 1-27.	2.5	14
36	Personalized Adaptive Cruise Control via Gaussian Process Regression. , 2021, , .		12

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37	Gaussian Process-Based Personalized Adaptive Cruise Control. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 21178-21189.	4.7	12
38	On the Data-Driven Prediction of Arrival Times for Freight Trains on U.S. Railroads. , 2018, , .		11
39	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
40	Interactive multiple model ensemble Kalman filter for traffic estimation and incident detection. , 2014, , .		9
41	Dissipation of Emergent Traffic Waves in Stop-and-Go Traffic Using a Supervisory Controller. , 2018, , .		8
42	Integrated Framework of Vehicle Dynamics, Instabilities, Energy Models, and Sparse Flow Smoothing Controllers. , 2021, , .		8
43	Connections between classical car following models and artificial neural networks. , 2018, , .		7
44	Markov Chain Monte Carlo based inverse modeling of traffic flows using GPS data. Networks and Heterogeneous Media, 2013, 8, 803-824.	0.5	7
45	Enhanced data reconciliation of freight rail dispatch data. Journal of Rail Transport Planning and Management, 2020, 14, 100193.	0.8	6
46	Detecting Extreme Traffic Events Via a Context Augmented Graph Autoencoder. ACM Transactions on Intelligent Systems and Technology, 2022, 13, 1-23.	2.9	6
47	Estimating post-disaster traffic conditions using real-time data streams. Structure and Infrastructure Engineering, 2016, 12, 904-917.	2.0	5
48	Real-time distance estimation and filtering of vehicle headways for smoothing of traffic waves. , 2019, , .		5
49	Computing travel times from filtered traffic states. Discrete and Continuous Dynamical Systems - Series S, 2014, 7, 557-578.	0.6	5
50	Error bounds for Kalman filters on traffic networks. Networks and Heterogeneous Media, 2018, 13, 261-295.	0.5	5
51	Vehicle detection and speed estimation with PIR sensors. , 2015, , .		4
52	Inferring Traffic Signal Phases From Turning Movement Counters Using Hidden Markov Models. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 91-101.	4.7	4
53	Interstate-24 MOTION: Closing the Loop on Smart Mobility. , 2020, , .		4
54	Streaming Data Preprocessing via Online Tensor Recovery for Large Environmental Sensor Networks. ACM Transactions on Knowledge Discovery From Data, 2022, 16, 1-24.	2.5	4

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55	Estimating traffic signal phases from turning movement counters. , 2013, , .		3
56	Estimating traffic conditions from smart work zone systems. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2018, 22, 490-502.	2.6	3
57	Convex formulations of aggregate network air traffic flow optimization problems. , 2008, , .		2
58	Estimating traffic control strategies with inverse optimal control. , 2013, , .		2
59	A Convex Formulation of Traffic Dynamics on Transportation Networks. SIAM Journal on Applied Mathematics, 2017, 77, 1493-1515.	0.8	2
60	Congestion barcodes: Exploring the topology of urban congestion using persistent homology. , 2017, , .		2
61	Data-driven methods for dockless bike infrastructure planning. , 2019, , .		2
62	String stability of commercial adaptive cruise control vehicles. , 2019, , .		2
63	Heterogeneous traffic estimation with particle filtering. , 2019, , .		2
64	Seasonal Disorder in Urban Traffic Patterns: A Low Rank Analysis. Journal of Big Data Analytics in Transportation, 2021, 3, 43-60.	1.4	2
65	Optimization methods for analysis of empirical rail dispatching relative to train plans. Journal of Rail Transport Planning and Management, 2021, 19, 100261.	0.8	2
66	Online parameter estimation of adaptive cruise control models with delays and lags. , 2020, , .		2
67	Kalman filtering with synthetic measurements under an event-triggered sensor scheduler. , 2016, , .		1
68	Modeling and assessing adaptive cruise control stability: experimental insights. , 2019, , .		1
69	Estimation for heterogeneous traffic using enhanced particle filters. Transportmetrica A: Transport Science, 2022, 18, 568-593.	1.3	1
70	Experimental testing of a control barrier function on an automated vehicle in live multi-lane traffic. , 2022, , .		1
71	Controlling for Unsafe Events in Dense Traffic through Autonomous Vehicles. , 2017, , .		0
72	Enhancing the Validity of Traffic Flow Models with Emerging Data. Lecture Notes in Mobility, 2019, , 233-241.	0.2	0

#	Article	IF	Citations
73	Streaming computation algorithms for spatiotemporal micromobility service availability. , 2020, , .		0