

# Agachai Sumalee

## List of Publications by Year in descending order

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107  
papers

4,530  
citations

81743

39  
h-index

114278

63  
g-index

111  
all docs

111  
docs citations

111  
times ranked

2660  
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling impacts of adverse weather conditions on a road network with uncertainties in demand and supply. <i>Transportation Research Part B: Methodological</i> , 2008, 42, 890-910.	2.8	231
2	Stochastic cell transmission model (SCTM): A stochastic dynamic traffic model for traffic state surveillance and assignment. <i>Transportation Research Part B: Methodological</i> , 2011, 45, 507-533.	2.8	188
3	Global optimization method for mixed transportation network design problem: A mixed-integer linear programming approach. <i>Transportation Research Part B: Methodological</i> , 2011, 45, 808-827.	2.8	173
4	Smarter and more connected: Future intelligent transportation system. <i>IATSS Research</i> , 2018, 42, 67-71.	1.8	169
5	A Genetic Algorithm Approach for Optimizing Traffic Control Signals Considering Routing. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2007, 22, 31-43.	6.3	145
6	A network equilibrium model with travellers' perception of stochastic travel times. <i>Transportation Research Part B: Methodological</i> , 2009, 43, 614-624.	2.8	124
7	Finding Reliable Shortest Paths in Road Networks Under Uncertainty. <i>Networks and Spatial Economics</i> , 2013, 13, 123-148.	0.7	118
8	A Sustainable Road Network Design Problem with Land Use Transportation Interaction over Time. <i>Networks and Spatial Economics</i> , 2015, 15, 791-822.	0.7	109
9	Schedule-based transit assignment model with vehicle capacity and seat availability. <i>Transportation Research Part B: Methodological</i> , 2011, 45, 1805-1830.	2.8	99
10	Reliable shortest path finding in stochastic networks with spatial correlated link travel times. <i>International Journal of Geographical Information Science</i> , 2012, 26, 365-386.	2.2	99
11	Short-Term Traffic State Prediction Based on Temporal-Spatial Correlation. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2013, 14, 1242-1254.	4.7	99
12	A Genetic Algorithm Based Approach to Optimal Toll Level and Location Problems. <i>Networks and Spatial Economics</i> , 2004, 4, 161-179.	0.7	88
13	Dynamic stochastic transit assignment with explicit seat allocation model. <i>Transportation Research Part B: Methodological</i> , 2009, 43, 895-912.	2.8	87
14	Reliable Shortest Path Problems in Stochastic Time-Dependent Networks. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2014, 18, 177-189.	2.6	85
15	Vulnerability analysis for large-scale and congested road networks with demand uncertainty. <i>Transportation Research, Part A: Policy and Practice</i> , 2012, 46, 501-516.	2.0	84
16	Environmentally Sustainable Toll Design for Congested Road Networks with Uncertain Demand. <i>International Journal of Sustainable Transportation</i> , 2012, 6, 127-155.	2.1	83
17	A Cell-Based Model for Multi-class Doubly Stochastic Dynamic Traffic Assignment. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2011, 26, 595-611.	6.3	82
18	Stochastic multi-modal transport network under demand uncertainties and adverse weather condition. <i>Transportation Research Part C: Emerging Technologies</i> , 2011, 19, 338-350.	3.9	82

#	ARTICLE	IF	CITATIONS
19	Design of a rail transit line for profit maximization in a linear transportation corridor. <i>Transportation Research, Part E: Logistics and Transportation Review</i> , 2012, 48, 50-70.	3.7	80
20	The impact of cordon design on the performance of road pricing schemes. <i>Transport Policy</i> , 2002, 9, 209-220.	3.4	75
21	Optimal Road User Charging Cordon Design: A Heuristic Optimization Approach. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2004, 19, 377-392.	6.3	75
22	Network Capacity Reliability Analysis Considering Traffic Regulation after a Major Disaster. <i>Networks and Spatial Economics</i> , 2006, 6, 205-219.	0.7	73
23	Large-scale road network vulnerability analysis: a sensitivity analysis based approach. <i>Transportation</i> , 2011, 38, 799-817.	2.1	71
24	Reliable Network Design Problem: Case with Uncertain Demand and Total Travel Time Reliability. , 0, .		71
25	An activity-based approach for scheduling multimodal transit services. <i>Transportation</i> , 2010, 37, 751-774.	2.1	69
26	Robust Wardrop's user equilibrium assignment under stochastic demand and supply: Expected residual minimization approach. <i>Transportation Research Part B: Methodological</i> , 2011, 45, 534-552.	2.8	68
27	The use of natural rubber latex as a renewable and sustainable modifier of asphalt binder. <i>International Journal of Pavement Engineering</i> , 2017, 18, 547-559.	2.2	67
28	Estimation of mean and covariance of peak hour origin-destination demands from day-to-day traffic counts. <i>Transportation Research Part B: Methodological</i> , 2014, 68, 52-75.	2.8	61
29	Shortest Path Finding Problem in Stochastic Time-Dependent Road Networks With Stochastic First-In-First-Out Property. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2013, 14, 1907-1917.	4.7	56
30	Modeling the impacts of mandatory and discretionary lane-changing maneuvers. <i>Transportation Research Part C: Emerging Technologies</i> , 2016, 68, 403-424.	3.9	54
31	Dynamic Cell Transmission-Based Pedestrian Model with Multidirectional Flows and Strategic Route Choices. <i>Transportation Research Record</i> , 2007, 2039, 42-49.	1.0	52
32	A dynamic traffic assignment model for a continuum transportation system. <i>Transportation Research Part B: Methodological</i> , 2011, 45, 343-363.	2.8	52
33	An efficient solution algorithm for solving multi-class reliability-based traffic assignment problem. <i>Mathematical and Computer Modelling</i> , 2011, 54, 1428-1439.	2.0	51
34	First-best marginal cost toll for a traffic network with stochastic demand. <i>Transportation Research Part B: Methodological</i> , 2011, 45, 41-59.	2.8	48
35	Robust perimeter control for two urban regions with macroscopic fundamental diagrams: A control-Lyapunov function approach. <i>Transportation Research Part B: Methodological</i> , 2018, 117, 687-707.	2.8	48
36	Efficiency and equity comparison of cordon- and area-based road pricing schemes using a trip-chain equilibrium model. <i>Transportation Research, Part A: Policy and Practice</i> , 2007, 41, 655-671.	2.0	44

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37	Reliable Network Design Problem. <i>Transportation Research Record</i> , 2006, 1964, 81-90.	1.0	43
38	A Study on Network Design Problems for Multi-modal Networks by Probit-based Stochastic User Equilibrium. <i>Networks and Spatial Economics</i> , 2007, 7, 213-240.	0.7	42
39	A cross-entropy method and probabilistic sensitivity analysis framework for calibrating microscopic traffic models. <i>Transportation Research Part C: Emerging Technologies</i> , 2016, 63, 147-169.	3.9	41
40	Sensitivity analysis of the variable demand probit stochastic user equilibrium with multiple user-classes. <i>Transportation Research Part B: Methodological</i> , 2007, 41, 593-615.	2.8	40
41	Optimizing toll locations and levels using a mixed integer linear approximation approach. <i>Transportation Research Part B: Methodological</i> , 2012, 46, 834-854.	2.8	40
42	Design of Sustainable Cordon Toll Pricing Schemes in a Monocentric City. <i>Networks and Spatial Economics</i> , 2014, 14, 133-158.	0.7	39
43	Dynamic marginal cost, access control, and pollution charge: a comparison of bottleneck and whole link models. <i>Journal of Advanced Transportation</i> , 2012, 46, 191-221.	0.9	38
44	Dynamic stochastic journey time estimation and reliability analysis using stochastic cell transmission model: Algorithm and case studies. <i>Transportation Research Part C: Emerging Technologies</i> , 2013, 35, 263-285.	3.9	38
45	Forecasting journey time distribution with consideration to abnormal traffic conditions. <i>Transportation Research Part C: Emerging Technologies</i> , 2017, 85, 292-311.	3.9	38
46	Boundary conditions and behavior of the macroscopic fundamental diagram based network traffic dynamics: A control systems perspective. <i>Transportation Research Part B: Methodological</i> , 2018, 111, 327-355.	2.8	37
47	Dynamic user equilibrium with side constraints for a traffic network: Theoretical development and numerical solution algorithm. <i>Transportation Research Part B: Methodological</i> , 2011, 45, 1035-1061.	2.8	36
48	Network Evaluation Based on Connectivity Vulnerability. , 2009, , 637-649.		35
49	Comparison of judgmental and optimal road pricing cordons. <i>Transport Policy</i> , 2005, 12, 384-390.	3.4	34
50	MULTI-CONCENTRIC OPTIMAL CHARGING CORDON DESIGN. <i>Transportmetrica</i> , 2007, 3, 41-71.	1.8	34
51	Stochastic cell transmission model for traffic network with demand and supply uncertainties. <i>Transportmetrica A: Transport Science</i> , 2013, 9, 567-602.	1.3	33
52	Modeling the Effects of Public Bicycle Schemes in a Congested Multi-Modal Road Network. <i>International Journal of Sustainable Transportation</i> , 2015, 9, 282-297.	2.1	33
53	Road user charging design: dealing with multi-objectives and constraints. <i>Transportation</i> , 2009, 36, 167-186.	2.1	31
54	Multiclass multilane model for freeway traffic mixed with connected automated vehicles and regular human-piloted vehicles. <i>Transportmetrica A: Transport Science</i> , 2021, 17, 5-33.	1.3	31

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55	Partition-based algorithm for estimating transportation network reliability with dependent link failures. <i>Journal of Advanced Transportation</i> , 2008, 42, 213-238.	0.9	30
56	Network Equilibrium under Cumulative Prospect Theory and Endogenous Stochastic Demand and Supply. , 2009, , 19-38.		30
57	Evaluation and Design of Transport Network Capacity under Demand Uncertainty. <i>Transportation Research Record</i> , 2009, 2090, 17-28.	1.0	26
58	Optimal and robust strategies for freeway traffic management under demand and supply uncertainties: an overview and general theory. <i>Transportmetrica A: Transport Science</i> , 2014, 10, 849-877.	1.3	26
59	The multi-class schedule-based transit assignment model under network uncertainties. <i>Public Transport</i> , 2010, 2, 69-86.	1.7	24
60	Modeling Impact of Transit Operator Fleet Size under various Market Regimes with Uncertainty in Network. <i>Transportation Research Record</i> , 2008, 2063, 18-27.	1.0	23
61	Specification of Optimal Cordon Pricing Locations and Charges. <i>Transportation Research Record</i> , 2002, 1812, 60-68.	1.0	21
62	Statistical estimation of freight activity analytics from Global Positioning System data of trucks. <i>Transportation Research, Part E: Logistics and Transportation Review</i> , 2020, 140, 101986.	3.7	21
63	On the existence and uniqueness of first best tolls in networks with multiple user classes and elastic demand. <i>Transportmetrica</i> , 2009, 5, 141-157.	1.8	20
64	Second best toll and capacity optimisation in networks: solution algorithm and policy implications. <i>Transportation</i> , 2009, 36, 147-165.	2.1	18
65	Estimation of mean and covariance of stochastic multi-class OD demands from classified traffic counts. <i>Transportation Research Part C: Emerging Technologies</i> , 2015, 59, 92-110.	3.9	18
66	Freight Traffic Analytics from National Truck GPS Data in Thailand. <i>Transportation Research Procedia</i> , 2018, 34, 123-130.	0.8	17
67	Policy Implications of Airline Performance Indicators. <i>Transportation Research Record</i> , 2010, 2177, 41-48.	1.0	16
68	Bus lane safety implications: a case study in Hong Kong. <i>Transportmetrica A: Transport Science</i> , 2014, 10, 140-159.	1.3	16
69	Study on Optimal Frequency Design Problem for Multimodal Network Using Probit-Based User Equilibrium Assignment. , 0, .		16
70	A congestion-pricing problem with a polycentric region and multi-class users: a continuum modelling approach. <i>Transportmetrica A: Transport Science</i> , 2013, 9, 514-545.	1.3	15
71	Link-based multi-class hazmat routing-scheduling problem: A multiple demon approach. <i>European Journal of Operational Research</i> , 2017, 261, 337-354.	3.5	15
72	Journey time estimator for assessment of road network performance under demand uncertainty. <i>Transportation Research Part C: Emerging Technologies</i> , 2013, 35, 244-262.	3.9	14

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73	Vehicle Reidentification With Self-Adaptive Time Windows for Real-Time Travel Time Estimation. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 540-552.	4.7	14
74	Pricing Environmental Externality in Traffic Networks Mixed With Fuel Vehicles and Electric Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 5535-5554.	4.7	14
75	Probabilistic Fusion of Vehicle Features for Reidentification and Travel Time Estimation Using Video Image Data. Transportation Research Record, 2012, 2308, 73-82.	1.0	13
76	Optimization of traffic count locations for estimation of travel demands with covariance between origin-destination flows. Transportation Research Part C: Emerging Technologies, 2019, 108, 49-73.	3.9	13
77	Guest Editorial: Reliability and Emergency Issues in Transportation Network Analysis. Networks and Spatial Economics, 2006, 6, 169-172.	0.7	12
78	Dynamic System Optimum Analysis of Multi-Region Macroscopic Fundamental Diagram Systems With State-Dependent Time-Varying Delays. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 4000-4016.	4.7	12
79	A Continuum Modeling Approach for Network Vulnerability Analysis at Regional Scale. Procedia, Social and Behavioral Sciences, 2013, 80, 846-859.	0.5	11
80	Study on Optimal Frequency Design Problem for Multimodal Network Using Probit-Based User Equilibrium Assignment. Transportation Research Record, 2005, 1923, 236-245.	1.0	10
81	Statistical approach for activity-based model calibration based on plate scanning and traffic counts data. Transportation Research Part B: Methodological, 2015, 78, 280-300.	2.8	10
82	A real-time bus arrival time information system using crowdsourced smartphone data: a novel framework and simulation experiments. Transportmetrica B, 2018, 6, 34-53.	1.4	10
83	Simultaneous optimization of fuel surcharges and transit service runs in a multimodal transport network: a time-dependent activity-based approach. Transportation Letters, 2016, 8, 35-46.	1.8	9
84	Network-wide on-line travel time estimation with inconsistent data from multiple sensor systems under network uncertainty. Transportmetrica A: Transport Science, 2018, 14, 110-129.	1.3	9
85	An Optimal Toll Design Problem with Improved Behavioural Equilibrium Model: The Case of the Probit Model. , 2006, , 219-240.		9
86	Adaptive Estimation of Noise Covariance Matrices in Unscented Kalman Filter for Multiclass Traffic Flow Model. Transportation Research Record, 2010, 2188, 119-130.	1.0	8
87	Optimal Recovery Plan after Disaster: Continuum Modeling Approach. Journal of Transportation Engineering, 2014, 140, .	0.9	8
88	Solving a mixed integer linear program approximation of the toll design problem using constraint generation within a branch-and-cut algorithm. Transportmetrica A: Transport Science, 2014, 10, 791-819.	1.3	8
89	Estimation of the value of travel time and of travel time reliability for heterogeneous drivers in a road network. Transportation, 2021, 48, 1639-1670.	2.1	8
90	Travel time reliability-based optimization problem for CAVs dedicated lanes. Transportmetrica A: Transport Science, 2022, 18, 1569-1600.	1.3	8

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91	Design of a rail transit line for profit maximization in a linear transportation corridor. Procedia, Social and Behavioral Sciences, 2011, 17, 82-112.	0.5	7
92	Updating of Travel Behavior Model Parameters and Estimation of Vehicle Trip Chain Based on Plate Scanning. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2014, 18, 393-409.	2.6	7
93	A stochastic multimodal reliable network design problem under adverse weather conditions. Journal of Advanced Transportation, 2015, 49, 73-95.	0.9	7
94	Estimation of Mean and Covariance of Stochastic Multi-class OD Demands from Classified Traffic Counts. Transportation Research Procedia, 2015, 7, 192-211.	0.8	6
95	Evaluation and enhancement of transport network reliability: Network equilibrium based approach. Journal of Advanced Transportation, 2008, 42, 209-212.	0.9	5
96	Stochastic Cell Transmission Model: Traffic State Estimation under Uncertainties. , 2008, , .		5
97	Optimal Locations and Charges for Cordon Schemes. Research in Transportation Economics, 2004, 9, 87-105.	2.2	3
98	An optimal control framework for multi-region macroscopic fundamental diagram systems with time delay, considering route choice and departure time choice. , 2018, , .		3
99	Introduction: Modeling for Sustainable Urban Transportation. International Journal of Sustainable Transportation, 2013, 7, 167-169.	2.1	2
100	Transport dynamics: its time has come!. Transportmetrica B, 2013, 1, 1-2.	1.4	2
101	Automatic Freeway Incident Detection for Free Flow Conditions: A Vehicle Reidentification Based Approach Using Image Data from Sparsely Distributed Video Cameras. Mathematical Problems in Engineering, 2015, 2015, 1-13.	0.6	2
102	Using Time-dependent Attractiveness to Evaluate Dynamic Place-based Accessibility. , 2018, , .		1
103	Robust Transport Network Capacity Planning with Demand Uncertainty. , 2008, , .		0
104	Critical Link Identification for Traffic Incident Management Programme under Degradable Stochastic Network. HKIE Transactions, 2009, 16, 48-55.	1.9	0
105	Evolutionary Marginal Cost Pricing Scheme Implementation Based on Stochastic Traffic Flow Information. Mathematical Problems in Engineering, 2015, 2015, 1-12.	0.6	0
106	Network-Wide Road Travel Time Estimation with Inconsistent Sensor Data. , 2010, , .		0
107	Genetic Algorithm for Constraint Optimal Toll Ring Design. Studies in Computational Intelligence, 2008, , 45-61.	0.7	0