

Soyoung Ahn

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

2,720
citations

218677
26
h-index

197818
49
g-index

51
all docs

51
docs citations

51
times ranked

1381
citing authors

#	ARTICLE	IF	CITATIONS
1	Impact of traffic oscillations on freeway crash occurrences. Accident Analysis and Prevention, 2010, 42, 626-636.	5.7	232
2	Towards vehicle automation: Roadway capacity formulation for traffic mixed with regular and automated vehicles. Transportation Research Part B: Methodological, 2017, 100, 196-221.	5.9	231
3	A behavioral car-following model that captures traffic oscillations. Transportation Research Part B: Methodological, 2012, 46, 744-761.	5.9	164
4	The effects of lane-changing on the immediate follower: Anticipation, relaxation, and change in driver characteristics. Transportation Research Part C: Emerging Technologies, 2013, 26, 367-379.	7.6	161
5	Applications of wavelet transform for analysis of freeway traffic: Bottlenecks, transient traffic, and traffic oscillations. Transportation Research Part B: Methodological, 2011, 45, 372-384.	5.9	154
6	Distributed model predictive control approach for cooperative car-following with guaranteed local and string stability. Transportation Research Part B: Methodological, 2019, 128, 69-86.	5.9	134
7	Rolling horizon stochastic optimal control strategy for ACC and CACC under uncertainty. Transportation Research Part C: Emerging Technologies, 2017, 83, 61-76.	7.6	125
8	Verification of a simplified car-following theory. Transportation Research Part B: Methodological, 2004, 38, 431-440.	5.9	107
9	Stabilizing mixed vehicular platoons with connected automated vehicles: An H-infinity approach. Transportation Research Part B: Methodological, 2020, 132, 152-170.	5.9	107
10	Freeway traffic oscillations: Microscopic analysis of formations and propagations using Wavelet Transform. Transportation Research Part B: Methodological, 2011, 45, 1378-1388.	5.9	101
11	On the periodicity of traffic oscillations and capacity drop: The role of driver characteristics. Transportation Research Part B: Methodological, 2014, 59, 117-136.	5.9	100
12	Variable speed limit control at fixed freeway bottlenecks using connected vehicles. Transportation Research Part B: Methodological, 2017, 98, 113-134.	5.9	97
13	Microscopic traffic hysteresis in traffic oscillations: A behavioral perspective. Transportation Research Part B: Methodological, 2012, 46, 1440-1453.	5.9	81
14	Robust local and string stability for a decentralized car following control strategy for connected automated vehicles. Transportation Research Part B: Methodological, 2019, 125, 175-196.	5.9	81
15	Stabilizing Mixed Vehicular Platoons with Connected Automated Vehicles: An H-infinity Approach. Transportation Research Procedia, 2019, 38, 441-461.	1.5	68
16	Variable speed limit control for steady and oscillatory queues at fixed freeway bottlenecks. Transportation Research Part B: Methodological, 2014, 70, 340-358.	5.9	67
17	Capacity-drop at extended bottlenecks: Merge, diverge, and weave. Transportation Research Part B: Methodological, 2018, 108, 1-20.	5.9	65
18	Lane flow distribution on a three-lane freeway: General features and the effects of traffic controls. Transportation Research Part C: Emerging Technologies, 2012, 24, 157-167.	7.6	63

#	ARTICLE	IF	CITATIONS
19	Variable speed limit control for severe non-recurrent freeway bottlenecks. Transportation Research Part C: Emerging Technologies, 2015, 51, 210-230.	7.6	54
20	Passing Rates to Measure Relaxation and Impact of Lane-Changing in Congestion. Computer-Aided Civil and Infrastructure Engineering, 2011, 26, 285-297.	9.8	49
21	Stochastic modeling of breakdown at freeway merge bottleneck and traffic control method using connected automated vehicle. Transportation Research Part B: Methodological, 2018, 107, 146-166.	5.9	46
22	Empirical macroscopic evaluation of freeway merge-ratios. Transportation Research Part C: Emerging Technologies, 2010, 18, 457-470.	7.6	41
23	The cooperative sorting strategy for connected and automated vehicle platoons. Transportation Research Part C: Emerging Technologies, 2021, 123, 102986.	7.6	41
24	Effects of Merging and Diverging on Freeway Traffic Oscillations. Transportation Research Record, 2010, 2188, 1-8.	1.9	32
25	Driver Turn-Taking Behavior in Congested Freeway Merges. Transportation Research Record, 2005, 1934, 140-147.	1.9	31
26	A method to account for non-steady state conditions in measuring traffic hysteresis. Transportation Research Part C: Emerging Technologies, 2013, 34, 138-147.	7.6	30
27	Improving the Accuracy of Vehicle Emissions Profiles for Urban Transportation Greenhouse Gas and Air Pollution Inventories. Environmental Science & Technology, 2015, 49, 369-376.	10.0	24
28	Traffic dynamics under speed disturbance in mixed traffic with automated and non-automated vehicles. Transportation Research Part C: Emerging Technologies, 2020, 113, 293-313.	7.6	20
29	Evaluating Benefits of Systemwide Adaptive Ramp-Metering Strategy in Portland, Oregon. Transportation Research Record, 2007, 2012, 47-56.	1.9	19
30	Car-Following and Lane-Changing Behavior Involving Heavy Vehicles:. Transportation Research Record, 2016, 2561, 89-97.	1.9	19
31	Harnessing connected and automated vehicle technologies to control lane changes at freeway merge bottlenecks in mixed traffic. Transportation Research Part C: Emerging Technologies, 2021, 123, 102950.	7.6	19
32	Evolution of Oscillations in Congested Traffic. Transportation Research Record, 2009, 2124, 194-202.	1.9	16
33	Comparisons of Speed-Spacing Relations under General Car following versus Lane Changing. Transportation Research Record, 2008, 2088, 138-147.	1.9	15
34	Identifying Large Truck Hot Spots Using Crash Counts and PDOEs. Journal of Transportation Engineering, 2011, 137, 11-21.	0.9	15
35	Variable Speed Release (VSR): Speed Control to Increase Bottleneck Capacity. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 298-307.	8.0	15
36	Truck platooning on uphill grades under cooperative adaptive cruise control (CACC). Transportation Research Part C: Emerging Technologies, 2018, 94, 50-66.	7.6	14

#	ARTICLE	IF	CITATIONS
37	On lane assignment of connected automated vehicles: strategies to improve traffic flow at diverge and weave bottlenecks. Transportation Research Part C: Emerging Technologies, 2021, 127, 103126.	7.6	14
38	Control of Connected and Autonomous Vehicles with Cut-in Movement using Spring Mass Damper System. Transportation Research Record, 2018, 2672, 133-143.	1.9	11
39	Autonomous vehicle adoption: use phase environmental implications. Environmental Research Letters, 2021, 16, 064010.	5.2	9
40	Analysis of Driver Response and Traffic Evolution under Variable Speed Limit Control. Transportation Research Record, 2015, 2490, 1-10.	1.9	7
41	On macroscopic freeway merge behavior: Estimation of merge ratios using asymmetric lane flow distribution. Transportation Research Part C: Emerging Technologies, 2015, 60, 24-35.	7.6	7
42	On multi-class automated vehicles: Car-following behavior and its implications for traffic dynamics. Transportation Research Part C: Emerging Technologies, 2021, 128, 103166.	7.6	7
43	Mixed Traffic of Connected and Autonomous Vehicles and Human-Driven Vehicles: Traffic Evolution and Control using Spring-Mass-Damper System. Transportation Research Record, 2019, 2673, 504-515.	1.9	6
44	Lane flow distribution of congested traffic on three-lane freeways. International Journal of Transportation Science and Technology, 2020, 9, 1-13.	3.6	5
45	Analysis and Control of Heterogeneous Connected and Autonomous Vehicles using a Spring-Mass-Damper System. Transportation Research Record, 2020, 2674, 309-318.	1.9	5
46	Truck Platooning on Uphill Grades under Cooperative Adaptive Cruise Control (CACC). Transportation Research Procedia, 2017, 23, 1059-1078.	1.5	4
47	Platoon Trajectory Completion in a Mixed Traffic Environment Under Sparse Observation. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 16217-16226.	8.0	3
48	Modeling and Control Using Connected and Automated Vehicles with Chained Asymmetric Driver Behavior under Stop-and-Go Oscillations. Transportation Research Record, 2021, 2675, 342-355.	1.9	2
49	Estimation of Traffic Flow Rate With Data From Connected-Automated Vehicles Using Bayesian Inference and Deep Learning. Frontiers in Future Transportation, 2021, 2, .	1.8	2
50	On the Spatial Evolution of Traffic State Transitions: Empirical Observations and General Features. Transportation Research Record, 2019, 2673, 606-618.	1.9	0
51	Identification of Potential Freight Parking Locations in Urban Areas. Transportation Research Record, 0, , 036119812110130.	1.9	0