

Soyoung Ahn

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

2,720
citations

236612

25
h-index

205818

48
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. <i>Accident Analysis and Prevention</i> , 2010, 42, 626-636.	3.0	232
2	Towards vehicle automation: Roadway capacity formulation for traffic mixed with regular and automated vehicles. <i>Transportation Research Part B: Methodological</i> , 2017, 100, 196-221.	2.8	231
3	A behavioral car-following model that captures traffic oscillations. <i>Transportation Research Part B: Methodological</i> , 2012, 46, 744-761.	2.8	164
4	The effects of lane-changing on the immediate follower: Anticipation, relaxation, and change in driver characteristics. <i>Transportation Research Part C: Emerging Technologies</i> , 2013, 26, 367-379.	3.9	161
5	Applications of wavelet transform for analysis of freeway traffic: Bottlenecks, transient traffic, and traffic oscillations. <i>Transportation Research Part B: Methodological</i> , 2011, 45, 372-384.	2.8	154
6	Distributed model predictive control approach for cooperative car-following with guaranteed local and string stability. <i>Transportation Research Part B: Methodological</i> , 2019, 128, 69-86.	2.8	134
7	Rolling horizon stochastic optimal control strategy for ACC and CACC under uncertainty. <i>Transportation Research Part C: Emerging Technologies</i> , 2017, 83, 61-76.	3.9	125
8	Verification of a simplified car-following theory. <i>Transportation Research Part B: Methodological</i> , 2004, 38, 431-440.	2.8	107
9	Stabilizing mixed vehicular platoons with connected automated vehicles: An H-infinity approach. <i>Transportation Research Part B: Methodological</i> , 2020, 132, 152-170.	2.8	107
10	Freeway traffic oscillations: Microscopic analysis of formations and propagations using Wavelet Transform. <i>Transportation Research Part B: Methodological</i> , 2011, 45, 1378-1388.	2.8	101
11	On the periodicity of traffic oscillations and capacity drop: The role of driver characteristics. <i>Transportation Research Part B: Methodological</i> , 2014, 59, 117-136.	2.8	100
12	Variable speed limit control at fixed freeway bottlenecks using connected vehicles. <i>Transportation Research Part B: Methodological</i> , 2017, 98, 113-134.	2.8	97
13	Microscopic traffic hysteresis in traffic oscillations: A behavioral perspective. <i>Transportation Research Part B: Methodological</i> , 2012, 46, 1440-1453.	2.8	81
14	Robust local and string stability for a decentralized car following control strategy for connected automated vehicles. <i>Transportation Research Part B: Methodological</i> , 2019, 125, 175-196.	2.8	81
15	Stabilizing Mixed Vehicular Platoons with Connected Automated Vehicles: An H-infinity Approach. <i>Transportation Research Procedia</i> , 2019, 38, 441-461.	0.8	68
16	Variable speed limit control for steady and oscillatory queues at fixed freeway bottlenecks. <i>Transportation Research Part B: Methodological</i> , 2014, 70, 340-358.	2.8	67
17	Capacity-drop at extended bottlenecks: Merge, diverge, and weave. <i>Transportation Research Part B: Methodological</i> , 2018, 108, 1-20.	2.8	65
18	Lane flow distribution on a three-lane freeway: General features and the effects of traffic controls. <i>Transportation Research Part C: Emerging Technologies</i> , 2012, 24, 157-167.	3.9	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.	3.9	54
20	Passing Rates to Measure Relaxation and Impact of Lane-Changing in Congestion. Computer-Aided Civil and Infrastructure Engineering, 2011, 26, 285-297.	6.3	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.	2.8	46
22	Empirical macroscopic evaluation of freeway merge-ratios. Transportation Research Part C: Emerging Technologies, 2010, 18, 457-470.	3.9	41
23	The cooperative sorting strategy for connected and automated vehicle platoons. Transportation Research Part C: Emerging Technologies, 2021, 123, 102986.	3.9	41
24	Effects of Merging and Diverging on Freeway Traffic Oscillations. Transportation Research Record, 2010, 2188, 1-8.	1.0	32
25	Driver Turn-Taking Behavior in Congested Freeway Merges. , 0, .		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.	3.9	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.	4.6	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.	3.9	20
29	Evaluating Benefits of Systemwide Adaptive Ramp-Metering Strategy in Portland, Oregon. Transportation Research Record, 2007, 2012, 47-56.	1.0	19
30	Car-Following and Lane-Changing Behavior Involving Heavy Vehicles:. Transportation Research Record, 2016, 2561, 89-97.	1.0	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.	3.9	19
32	Evolution of Oscillations in Congested Traffic. Transportation Research Record, 2009, 2124, 194-202.	1.0	16
33	Comparisons of Speed-Spacing Relations under General Car following versus Lane Changing. Transportation Research Record, 2008, 2088, 138-147.	1.0	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.	4.7	15
36	Truck platooning on uphill grades under cooperative adaptive cruise control (CACC). Transportation Research Part C: Emerging Technologies, 2018, 94, 50-66.	3.9	14

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37	On lane assignment of connected automated vehicles: strategies to improve traffic flow at diverge and weave bottlenecks. <i>Transportation Research Part C: Emerging Technologies</i> , 2021, 127, 103126.	3.9	14
38	Control of Connected and Autonomous Vehicles with Cut-in Movement using Spring Mass Damper System. <i>Transportation Research Record</i> , 2018, 2672, 133-143.	1.0	11
39	Autonomous vehicle adoption: use phase environmental implications. <i>Environmental Research Letters</i> , 2021, 16, 064010.	2.2	9
40	Analysis of Driver Response and Traffic Evolution under Variable Speed Limit Control. <i>Transportation Research Record</i> , 2015, 2490, 1-10.	1.0	7
41	On macroscopic freeway merge behavior: Estimation of merge ratios using asymmetric lane flow distribution. <i>Transportation Research Part C: Emerging Technologies</i> , 2015, 60, 24-35.	3.9	7
42	On multi-class automated vehicles: Car-following behavior and its implications for traffic dynamics. <i>Transportation Research Part C: Emerging Technologies</i> , 2021, 128, 103166.	3.9	7
43	Mixed Traffic of Connected and Autonomous Vehicles and Human-Driven Vehicles: Traffic Evolution and Control using Spring-Mass-Damper System. <i>Transportation Research Record</i> , 2019, 2673, 504-515.	1.0	6
44	Lane flow distribution of congested traffic on three-lane freeways. <i>International Journal of Transportation Science and Technology</i> , 2020, 9, 1-13.	2.0	5
45	Analysis and Control of Heterogeneous Connected and Autonomous Vehicles using a Spring-Mass-Damper System. <i>Transportation Research Record</i> , 2020, 2674, 309-318.	1.0	5
46	Truck Platooning on Uphill Grades under Cooperative Adaptive Cruise Control (CACC). <i>Transportation Research Procedia</i> , 2017, 23, 1059-1078.	0.8	4
47	Platoon Trajectory Completion in a Mixed Traffic Environment Under Sparse Observation. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 16217-16226.	4.7	3
48	Modeling and Control Using Connected and Automated Vehicles with Chained Asymmetric Driver Behavior under Stop-and-Go Oscillations. <i>Transportation Research Record</i> , 2021, 2675, 342-355.	1.0	2
49	Estimation of Traffic Flow Rate With Data From Connected-Automated Vehicles Using Bayesian Inference and Deep Learning. <i>Frontiers in Future Transportation</i> , 2021, 2, .	1.3	2
50	On the Spatial Evolution of Traffic State Transitions: Empirical Observations and General Features. <i>Transportation Research Record</i> , 2019, 2673, 606-618.	1.0	0
51	Identification of Potential Freight Parking Locations in Urban Areas. <i>Transportation Research Record</i> , 0, , 036119812110130.	1.0	0