Jorge A Laval

List of Publications by Year
in descending order

39 papers	2,382 citations	304602 22 h-index	302012 39 g-index
39 all docs	39 docs citations	39 times ranked	1163 citing authors

#	Article	IF	Citations
1	Lane-changing in traffic streams. Transportation Research Part B: Methodological, 2006, 40, 251-264.	2.8	520
2	A mechanism to describe the formation and propagation of stop-and-go waves in congested freeway traffic. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 4519-4541.	1.6	197
3	Microscopic modeling of the relaxation phenomenon using a macroscopic lane-changing model. Transportation Research Part B: Methodological, 2008, 42, 511-522.	2.8	174
4	A parsimonious model for the formation of oscillations in car-following models. Transportation Research Part B: Methodological, 2014, 70, 228-238.	2.8	129
5	Macroscopic urban dynamics: Analytical and numerical comparisons of existing models. Transportation Research Part B: Methodological, 2017, 101, 245-267.	2.8	110
6	A real-time bus dispatching policy to minimize passenger wait on a high frequency route. Transportation Research Part B: Methodological, 2015, 81, 377-389.	2.8	101
7	Hysteresis in traffic flow revisited: An improved measurement method. Transportation Research Part B: Methodological, 2011, 45, 385-391.	2.8	100
8	Optimal dynamic pricing strategies for high-occupancy/toll lanes. Transportation Research Part C: Emerging Technologies, 2011, 19, 64-74.	3.9	81
9	Microscopic traffic hysteresis in traffic oscillations: A behavioral perspective. Transportation Research Part B: Methodological, 2012, 46, 1440-1453.	2.8	81
10	The Hamilton–Jacobi partial differential equation and the three representations of traffic flow. Transportation Research Part B: Methodological, 2013, 52, 17-30.	2.8	81
11	Capacity drops at merges: An endogenous model. Transportation Research Part B: Methodological, 2011, 45, 1302-1313.	2.8	80
12	Moving bottlenecks: A numerical method that converges in flows. Transportation Research Part B: Methodological, 2005, 39, 855-863.	2.8	78
13	Capacity Drops at Merges: an endogenous model. Procedia, Social and Behavioral Sciences, 2011, 17, 12-26.	0.5	77
14	Stochastic approximations for the macroscopic fundamental diagram of urban networks. Transportation Research Part B: Methodological, 2015, 81, 904-916.	2.8	71
15	On the numerical treatment of moving bottlenecks. Transportation Research Part B: Methodological, 2005, 39, 31-46.	2.8	61
16	Comparing bus holding methods with and without real-time predictions. Transportation Research Part C: Emerging Technologies, 2018, 87, 197-211.	3.9	57
17	System optimum dynamic traffic assignment graphical solution method for a congested freeway and one destination. Transportation Research Part B: Methodological, 2006, 40, 1-15.	2.8	39
18	Dynamic traffic assignment using the macroscopic fundamental diagram: A Review of vehicular and pedestrian flow models. Transportation Research Part B: Methodological, 2020, 137, 99-118.	2.8	32

#	ARTICLE	IF	CITATIONS
19	Stochastic Approximations for the Macroscopic Fundamental Diagram of Urban Networks. Transportation Research Procedia, 2015, 7, 615-630.	0.8	29
20	Stochastic Extension of Newell's Three-Detector Method. Transportation Research Record, 2012, 2315, 73-80.	1.0	27
21	Effects of geometric design on freeway capacity: Impacts of truck lane restrictions. Transportation Research Part B: Methodological, 2009, 43, 720-728.	2.8	24
22	Real-time congestion pricing strategies for toll facilities. Transportation Research Part B: Methodological, 2015, 71, 19-31.	2.8	24
23	Symmetries in the kinematic wave model and a parameter-free representation of traffic flow. Transportation Research Part B: Methodological, 2016, 89, 168-177.	2.8	23
24	Minimal parameter formulations of the dynamic user equilibrium using macroscopic urban models: Freeway vs city streets revisited. Transportation Research Part B: Methodological, 2018, 117, 676-686.	2.8	22
25	Stochastic Processes of Moving Bottlenecks. Transportation Research Record, 2006, 1988, 86-91.	1.0	21
26	Analysis of a Two-Regime Stochastic Car-Following Model: Explaining Capacity Drop and Oscillation Instabilities. Transportation Research Record, 2019, 2673, 610-619.	1.0	18
27	A macroscopic theory of two-lane rural roads. Transportation Research Part B: Methodological, 2006, 40, 937-944.	2.8	16
28	Stochastic Processes of Moving Bottlenecks: Approximate Formulas for Highway Capacity. Transportation Research Record, 2006, 1988, 86-91.	1.0	15
29	The Distribution of Congestion on a Class of Stochastic Kinematic Wave Models. Transportation Science, 2014, 48, 217-224.	2.6	14
30	Continuum Approximation for Congestion Dynamics Along Freeway Corridors. Transportation Science, 2010, 44, 87-97.	2.6	13
31	Parameter estimation of the macroscopic fundamental diagram: A maximum likelihood approach. Transportation Research Part C: Emerging Technologies, 2022, 140, 103678.	3.9	13
32	Minimal Parameter Formulations of the Dynamic User Equilibrium using Macroscopic Urban Models: Freeway vs City Streets Revisited. Transportation Research Procedia, 2017, 23, 517-530.	0.8	11
33	Graphical solution and continuum approximation for the single destination dynamic user equilibrium problem. Transportation Research Part B: Methodological, 2009, 43, 108-118.	2.8	10
34	A continuum model for cities based on the macroscopic fundamental diagram: A semi-Lagrangian solution method. Transportation Research Part B: Methodological, 2020, 132, 101-116.	2.8	10
35	The impact of source terms in the variational representation of traffic flow. Transportation Research Part B: Methodological, 2016, 94, 204-216.	2.8	9
36	Microsimulation-Based Framework for Freeway Travel Time Forecasting. Transportation Research Record, 2014, 2470, 34-45.	1.0	5

#	Article	IF	Citations
37	Combined Ramp-Metering and Variable Speed Limit System for Capacity Drop Control at Merge Bottlenecks. Journal of Transportation Engineering Part A: Systems, 2020, 146, .	0.8	5
38	Microsimulation-Based Real-Time Congestion Pricing Strategy for Managed Lane. Transportation Research Record, 2016, 2554, 19-26.	1.0	3
39	Genetic algorithm-based simulation optimization of the ALINEA ramp metering system: a case study in Atlanta. Transportation Planning and Technology, 2020, 43, 475-487.	0.9	1