

Heilai Huang

List of Publications by Year in descending order

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Version: 2024-02-01

124
papers

6,342
citations

61687

45
h-index

87275

74
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125
all docs

125
docs citations

125
times ranked

3639
citing authors

#	ARTICLE	IF	CITATIONS
1	Driving angle prediction of lane changes based on extremely randomized decision trees considering the harmonic potential field method. <i>Transportmetrica A: Transport Science</i> , 2022, 18, 1601-1625.	1.3	3
2	A high-resolution trajectory data driven method for real-time evaluation of traffic safety. <i>Accident Analysis and Prevention</i> , 2022, 165, 106503.	3.0	38
3	Factors Affecting Injury Severity of Crashes in Freeway Tunnel Groups: A Random Parameter Approach. <i>Journal of Transportation Engineering Part A: Systems</i> , 2022, 148, .	0.8	15
4	Capturing long-memory properties in road fatality rate series by an autoregressive fractionally integrated moving average model with generalized autoregressive conditional heteroscedasticity: A case study of Florida, the United States, 1975â€“2018. <i>Journal of Safety Research</i> , 2022, 81, 216-224.	1.7	6
5	Road safety under the environment of intelligent connected vehicles. <i>Accident Analysis and Prevention</i> , 2022, 170, 106645.	3.0	8
6	Travel route safety estimation based on conflict simulation. <i>Accident Analysis and Prevention</i> , 2022, 171, 106666.	3.0	7
7	Application of explainable machine learning for real-time safety analysis toward a connected vehicle environment. <i>Accident Analysis and Prevention</i> , 2022, 171, 106681.	3.0	22
8	Analysing taxi customer-search behaviour using Copula-based joint model. <i>Transportation Safety and Environment</i> , 2022, 4, .	1.1	1
9	What Factors Would Make Single-Vehicle Motorcycle Crashes Fatal? Empirical Evidence from Pakistan. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 5813.	1.2	7
10	Understanding driversâ€™ awareness, habits and intentions inside road tunnels for effective safety policies. <i>Accident Analysis and Prevention</i> , 2022, 172, 106690.	3.0	15
11	Velocity control in car-following behavior with autonomous vehicles using reinforcement learning. <i>Accident Analysis and Prevention</i> , 2022, 174, 106729.	3.0	13
12	Traffic flow prediction on urban road network based on License Plate Recognition data: combining attention-LSTM with Genetic Algorithm. <i>Transportmetrica A: Transport Science</i> , 2021, 17, 1217-1243.	1.3	22
13	A random parameters regional quantile analysis for the varying effect of road-level risk factors on crash rates. <i>Analytic Methods in Accident Research</i> , 2021, 29, 100153.	4.7	6
14	Crash analysis of expressway long tunnels using a seven-zone analytic approach. <i>Journal of Transportation Safety and Security</i> , 2021, 13, 108-122.	1.1	14
15	Speed distribution and safety effects of license plate recognition: Analysis combining crash and toll record data in Hunan Province, China. <i>Journal of Transportation Safety and Security</i> , 2021, 13, 759-779.	1.1	3
16	Identifying Factors Contributing to the Motorcycle Crash Severity in Pakistan. <i>Journal of Advanced Transportation</i> , 2021, 2021, 1-10.	0.9	24
17	Using vehicular trajectory data to explore risky factors and unobserved heterogeneity during lane-changing. <i>Accident Analysis and Prevention</i> , 2021, 151, 105871.	3.0	35
18	The extended theory of planned behavior considering heterogeneity under a connected vehicle environment: A case of uncontrolled non-signalized intersections. <i>Accident Analysis and Prevention</i> , 2021, 151, 105934.	3.0	18

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19	Modeling accident risks in different lane-changing behavioral patterns. <i>Analytic Methods in Accident Research</i> , 2021, 30, 100159.	4.7	20
20	A review of surrogate safety measures and their applications in connected and automated vehicles safety modeling. <i>Accident Analysis and Prevention</i> , 2021, 157, 106157.	3.0	147
21	Safety improvements by intelligent connected vehicle technologies: A meta-analysis considering market penetration rates. <i>Accident Analysis and Prevention</i> , 2021, 159, 106234.	3.0	26
22	Correlation of the epidemic spread of COVID-19 and urban population migration in the major cities of Hubei Province, China. <i>Transportation Safety and Environment</i> , 2021, 3, 21-35.	1.1	4
23	Sustainable targeted interventions to mitigate the COVID-19 pandemic: A big data-driven modeling study in Hong Kong. <i>Chaos</i> , 2021, 31, 101104.	1.0	5
24	Measuring Accessibility Based on Improved Impedance and Attractive Functions Using Taxi Trajectory Data. <i>Sustainability</i> , 2021, 13, 112.	1.6	5
25	Spatial joint analysis for zonal daytime and nighttime crash frequencies using a Bayesian bivariate conditional autoregressive model. <i>Journal of Transportation Safety and Security</i> , 2020, 12, 566-585.	1.1	47
26	Random parameter probit models to analyze pedestrian red-light violations and injury severity in pedestrian-motor vehicle crashes at signalized crossings. <i>Journal of Transportation Safety and Security</i> , 2020, 12, 818-837.	1.1	46
27	A Mixed Path Size Logit-Based Taxi Customer-Search Model Considering Spatio-Temporal Factors in Route Choice. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2020, 21, 1347-1358.	4.7	22
28	Analysis of crash frequency using a Bayesian underreporting count model with spatial correlation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 545, 123754.	1.2	13
29	Review on big data applications in safety research of intelligent transportation systems and connected/automated vehicles. <i>Accident Analysis and Prevention</i> , 2020, 146, 105711.	3.0	48
30	Fifty Years of Accident Analysis & Prevention: A Bibliometric and Scientometric Overview. <i>Accident Analysis and Prevention</i> , 2020, 144, 105568.	3.0	49
31	Statistical and machine-learning methods for clearance time prediction of road incidents: A methodology review. <i>Analytic Methods in Accident Research</i> , 2020, 27, 100123.	4.7	69
32	Revisiting freeway single tunnel crash characteristics analysis: A six-zone analytic approach. <i>Accident Analysis and Prevention</i> , 2020, 142, 105542.	3.0	37
33	The influence of zonal configurations on macro-level crash modeling. <i>Transportmetrica A: Transport Science</i> , 2019, 15, 417-434.	1.3	16
34	Safety evaluation of discontinuous lane design of intersection approach in China. <i>Journal of Transportation Safety and Security</i> , 2019, 11, 398-413.	1.1	2
35	Jointly modeling area-level crash rates by severity: a Bayesian multivariate random-parameters spatio-temporal Tobit regression. <i>Transportmetrica A: Transport Science</i> , 2019, 15, 1867-1884.	1.3	71
36	Cyclists injured in traffic crashes in Hong Kong: A call for action. <i>PLoS ONE</i> , 2019, 14, e0220785.	1.1	13

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37	Investigating injury severities of motorcycle riders: A two-step method integrating latent class cluster analysis and random parameters logit model. <i>Accident Analysis and Prevention</i> , 2019, 131, 316-326.	3.0	78
38	Incorporating spatial effects into temporal dynamic of road traffic fatality risks: A case study on 48 lower states of the United States, 1975-2015. <i>Accident Analysis and Prevention</i> , 2019, 132, 105283.	3.0	7
39	Hourly associations between weather factors and traffic crashes: Non-linear and lag effects. <i>Analytic Methods in Accident Research</i> , 2019, 24, 100109.	4.7	31
40	Modeling unobserved heterogeneity for zonal crash frequencies: A Bayesian multivariate random-parameters model with mixture components for spatially correlated data. <i>Analytic Methods in Accident Research</i> , 2019, 24, 100105.	4.7	32
41	Analyzing drivers' preferences and choices for the content and format of variable message signs (VMS). <i>Transportation Research Part C: Emerging Technologies</i> , 2019, 100, 1-14.	3.9	42
42	A hierarchical prediction model for lane-changes based on combination of fuzzy C-means and adaptive neural network. <i>Expert Systems With Applications</i> , 2019, 130, 265-275.	4.4	52
43	Transportation Safety Planning Approach for Pedestrians: An Integrated Framework of Modeling Walking Duration and Pedestrian Fatalities. <i>Transportation Research Record</i> , 2019, 2673, 898-906.	1.0	20
44	Identifying motorcycle high-risk traffic scenarios through interactive analysis of driver behavior and traffic characteristics. <i>Transportation Research Part F: Traffic Psychology and Behaviour</i> , 2019, 62, 844-854.	1.8	25
45	Diagnostic analysis of the effects of weather condition on pedestrian crash severity. <i>Accident Analysis and Prevention</i> , 2019, 122, 318-324.	3.0	118
46	Crash injury severity analysis using a two-layer Stacking framework. <i>Accident Analysis and Prevention</i> , 2019, 122, 226-238.	3.0	153
47	Rethinking safety in numbers: are intersections with more crossing pedestrians really safer?. <i>Injury Prevention</i> , 2019, 25, 20-25.	1.2	27
48	Integrating macro- and micro-level safety analyses: a Bayesian approach incorporating spatial interaction. <i>Transportmetrica A: Transport Science</i> , 2019, 15, 285-306.	1.3	29
49	The modifiable areal unit problem in traffic safety: Basic issue, potential solutions and future research. <i>Journal of Traffic and Transportation Engineering (English Edition)</i> , 2018, 5, 73-82.	2.0	17
50	Incorporating temporal correlation into a multivariate random parameters Tobit model for modeling crash rate by injury severity. <i>Transportmetrica A: Transport Science</i> , 2018, 14, 177-191.	1.3	53
51	Investigation on the injuries of drivers and copilots in rear-end crashes between trucks based on real world accident data in China. <i>Future Generation Computer Systems</i> , 2018, 86, 1251-1258.	4.9	29
52	Interactive risk analysis on crash injury severity at a mountainous freeway with tunnel groups in China. <i>Accident Analysis and Prevention</i> , 2018, 111, 56-62.	3.0	63
53	Improve traffic death statistics in China. <i>Science</i> , 2018, 362, 650-650.	6.0	13
54	Bayesian approach to model pedestrian crashes at signalized intersections with measurement errors in exposure. <i>Accident Analysis and Prevention</i> , 2018, 121, 285-294.	3.0	43

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55	Crash analysis of Chinese freeway tunnel groups using a five-zone analytic approach. <i>Tunnelling and Underground Space Technology</i> , 2018, 82, 358-365.	3.0	38
56	Boundary crash data assignment in zonal safety analysis: An iterative approach based on data augmentation and Bayesian spatial model. <i>Accident Analysis and Prevention</i> , 2018, 121, 231-237.	3.0	23
57	Investigating varying effect of road-level factors on crash frequency across regions: A Bayesian hierarchical random parameter modeling approach. <i>Analytic Methods in Accident Research</i> , 2018, 20, 81-91.	4.7	34
58	Backwash-Spread Effects of Transportation Corridors on the Development of City Groups. <i>Journal of the Urban Planning and Development Division, ASCE</i> , 2018, 144, .	0.8	2
59	Advances in Traffic Safety Methodologies and Technologies. <i>Journal of Advanced Transportation</i> , 2018, 2018, 1-2.	0.9	4
60	Feature selection-based approach for urban short-term travel speed prediction. <i>IET Intelligent Transport Systems</i> , 2018, 12, 474-484.	1.7	25
61	Inferring driving trajectories based on probabilistic model from large scale taxi GPS data. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 506, 566-577.	1.2	77
62	Integrated Modeling Approach for Non-Motorized Mode Trips and Fatal Crashes in the Framework of Transportation Safety Planning. <i>Transportation Research Record</i> , 2018, 2672, 49-60.	1.0	17
63	A multivariate spatial model of crash frequency by transportation modes for urban intersections. <i>Analytic Methods in Accident Research</i> , 2017, 14, 10-21.	4.7	91
64	A Bayesian spatial random parameters Tobit model for analyzing crash rates on roadway segments. <i>Accident Analysis and Prevention</i> , 2017, 100, 37-43.	3.0	95
65	A multivariate random-parameters Tobit model for analyzing highway crash rates by injury severity. <i>Accident Analysis and Prevention</i> , 2017, 99, 184-191.	3.0	98
66	Safety evaluation for driving behaviors under bidirectional looking context. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2017, 21, 255-270.	2.6	10
67	Occupant-level injury severity analyses for taxis in Hong Kong: A Bayesian space-time logistic model. <i>Accident Analysis and Prevention</i> , 2017, 108, 297-307.	3.0	50
68	Gas dynamic analogous exposure approach to interaction intensity in multiple-vehicle crash analysis: Case study of crashes involving taxis. <i>Analytic Methods in Accident Research</i> , 2017, 16, 90-103.	4.7	14
69	Availability and consistency of health and non-health data for road traffic fatality: Analysis of data from 195 countries, 1985-2013. <i>Accident Analysis and Prevention</i> , 2017, 108, 220-226.	3.0	17
70	The effect of zonal factors in estimating crash risks by transportation modes: Motor vehicle, bicycle and pedestrian. <i>Accident Analysis and Prevention</i> , 2017, 98, 223-231.	3.0	63
71	Revisiting crash spatial heterogeneity: A Bayesian spatially varying coefficients approach. <i>Accident Analysis and Prevention</i> , 2017, 98, 330-337.	3.0	84
72	A Heckman selection model for the safety analysis of signalized intersections. <i>PLoS ONE</i> , 2017, 12, e0181544.	1.1	19

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73	Global Progress in Road Injury Mortality since 2010. PLoS ONE, 2016, 11, e0164560.	1.1	24
74	Injury Severity of Motorcycle Riders Involved in Traffic Crashes in Hunan, China: A Mixed Ordered Logit Approach. International Journal of Environmental Research and Public Health, 2016, 13, 714.	1.2	75
75	Severity of pedestrian injuries due to traffic crashes at signalized intersections in Hong Kong: a Bayesian spatial logit model. Journal of Advanced Transportation, 2016, 50, 2015-2028.	0.9	53
76	Macroscopic hotspots identification: A Bayesian spatio-temporal interaction approach. Accident Analysis and Prevention, 2016, 92, 256-264.	3.0	88
77	Modeling nonlinear relationship between crash frequency by severity and contributing factors by neural networks. Analytic Methods in Accident Research, 2016, 10, 12-25.	4.7	82
78	Examining driver injury severity outcomes in rural non-interstate roadway crashes using a hierarchical ordered logit model. Accident Analysis and Prevention, 2016, 96, 79-87.	3.0	93
79	Rule extraction from an optimized neural network for traffic crash frequency modeling. Accident Analysis and Prevention, 2016, 97, 87-95.	3.0	53
80	Traffic crash liability determination: Danger and Dodge model. Accident Analysis and Prevention, 2016, 95, 317-325.	3.0	2
81	Traffic safety in China: Challenges and countermeasures. Accident Analysis and Prevention, 2016, 95, 305-307.	3.0	13
82	Driver injury severity outcome analysis in rural interstate highway crashes: a two-level Bayesian logistic regression interpretation. Accident Analysis and Prevention, 2016, 97, 69-78.	3.0	61
83	The interactive effect on injury severity of driver-vehicle units in two-vehicle crashes. Journal of Safety Research, 2016, 59, 105-111.	1.7	35
84	Macro and micro models for zonal crash prediction with application in hot zones identification. Journal of Transport Geography, 2016, 54, 248-256.	2.3	100
85	Predicting crash frequency using an optimised radial basis function neural network model. Transportmetrica A: Transport Science, 2016, 12, 330-345.	1.3	33
86	Road network safety evaluation using Bayesian hierarchical joint model. Accident Analysis and Prevention, 2016, 90, 152-158.	3.0	58
87	Crash protectiveness to occupant injury and vehicle damage: An investigation on major car brands. Accident Analysis and Prevention, 2016, 86, 129-136.	3.0	20
88	A vehicle type-dependent visual imaging model for analysing the heterogeneous car-following dynamics. Transportmetrica B, 2016, 4, 68-85.	1.4	17
89	Examining Road Traffic Mortality Status in China: A Simulation Study. PLoS ONE, 2016, 11, e0153251.	1.1	25
90	An augmented Lagrangian origin-based algorithm for link-capacitated traffic assignment problem. Journal of Advanced Transportation, 2015, 49, 553-567.	0.9	6

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91	Support vector machine in crash prediction at the level of traffic analysis zones: Assessing the spatial proximity effects. <i>Accident Analysis and Prevention</i> , 2015, 82, 192-198.	3.0	120
92	An anisotropic continuum model considering bi-directional information impact. <i>Transportation Research Part B: Methodological</i> , 2015, 75, 36-57.	2.8	40
93	Multi-level hot zone identification for pedestrian safety. <i>Accident Analysis and Prevention</i> , 2015, 76, 64-73.	3.0	98
94	Modeling crash spatial heterogeneity: Random parameter versus geographically weighting. <i>Accident Analysis and Prevention</i> , 2015, 75, 16-25.	3.0	190
95	Indexing crash worthiness and crash aggressivity by major car brands. <i>Safety Science</i> , 2014, 62, 339-347.	2.6	17
96	Bayesian spatial joint modeling of traffic crashes on an urban road network. <i>Accident Analysis and Prevention</i> , 2014, 67, 105-112.	3.0	125
97	Sensitivity analysis in the context of regional safety modeling: Identifying and assessing the modifiable areal unit problem. <i>Accident Analysis and Prevention</i> , 2014, 70, 110-120.	3.0	78
98	Crash-level analysis on passenger cars' total secondary safety. <i>International Journal of Crashworthiness</i> , 2014, 19, 613-623.	1.1	6
99	Evaluating time-reminder strategies before amber: Common signal, green flashing and green countdown. <i>Accident Analysis and Prevention</i> , 2014, 71, 248-260.	3.0	34
100	A stable and optimized neural network model for crash injury severity prediction. <i>Accident Analysis and Prevention</i> , 2014, 73, 351-358.	3.0	96
101	Optimization method of alternate traffic restriction scheme based on elastic demand and mode choice behavior. <i>Transportation Research Part C: Emerging Technologies</i> , 2014, 39, 36-52.	3.9	32
102	Evaluating Spatial-Proximity Structures in Crash Prediction Models at the Level of Traffic Analysis Zones. <i>Transportation Research Record</i> , 2014, 2432, 46-52.	1.0	40
103	Corridor-level signalized intersection safety analysis in Shanghai, China using Bayesian hierarchical models. <i>Accident Analysis and Prevention</i> , 2013, 50, 25-33.	3.0	114
104	Aggregate nonparametric safety analysis of traffic zones. <i>Accident Analysis and Prevention</i> , 2012, 45, 317-325.	3.0	62
105	Incorporating transfer reliability into equilibrium analysis of railway passenger flow. <i>European Journal of Operational Research</i> , 2012, 220, 378-385.	3.5	17
106	Integrating Trip and Roadway Characteristics to Manage Safety in Traffic Analysis Zones. <i>Transportation Research Record</i> , 2011, 2213, 20-28.	1.0	96
107	A study on crashes related to visibility obstruction due to fog and smoke. <i>Accident Analysis and Prevention</i> , 2011, 43, 1730-1737.	3.0	171
108	Motor vehicle-bicycle crashes in Beijing: Irregular maneuvers, crash patterns, and injury severity. <i>Accident Analysis and Prevention</i> , 2011, 43, 1751-1758.	3.0	121

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109	Indexing crash worthiness and crash aggressivity by vehicle type. Accident Analysis and Prevention, 2011, 43, 1364-1370.	3.0	58
110	Exploring a Bayesian hierarchical approach for developing safety performance functions for a mountainous freeway. Accident Analysis and Prevention, 2011, 43, 1581-1589.	3.0	156
111	Design and verification of a laser based device for pavement macrotexture measurement. Transportation Research Part C: Emerging Technologies, 2011, 19, 682-694.	3.9	41
112	Integrating safety into transportation planning: A brief introduction. , 2011, , .		0
113	Applying Bayesian hierarchical models to examine motorcycle crashes at signalized intersections. Accident Analysis and Prevention, 2010, 42, 203-212.	3.0	105
114	Multilevel data and Bayesian analysis in traffic safety. Accident Analysis and Prevention, 2010, 42, 1556-1565.	3.0	214
115	Modeling road traffic crashes with zero-inflation and site-specific random effects. Statistical Methods and Applications, 2010, 19, 445-462.	0.7	35
116	Safety of Public Transportation Occupational Drivers: Risk Perception, Attitudes, and Driving Behavior. Transportation Research Record, 2010, 2145, 72-79.	1.0	92
117	County-Level Crash Risk Analysis in Florida: Bayesian Spatial Modeling. Transportation Research Record, 2010, 2148, 27-37.	1.0	205
118	Safety Analysis of Urban Arterials under Mixed-Traffic Patterns in Beijing. Transportation Research Record, 2010, 2193, 105-115.	1.0	29
119	Disaggregate Propensity Study on Red Light Running Crashes Using Quasi-Induced Exposure Method. Journal of Transportation Engineering, 2009, 135, 104-111.	0.9	20
120	Modeling fault among motorcyclists involved in crashes. Accident Analysis and Prevention, 2009, 41, 327-335.	3.0	145
121	Empirical Evaluation of Alternative Approaches in Identifying Crash Hot Spots. Transportation Research Record, 2009, 2103, 32-41.	1.0	108
122	Severity of driver injury and vehicle damage in traffic crashes at intersections: A Bayesian hierarchical analysis. Accident Analysis and Prevention, 2008, 40, 45-54.	3.0	299
123	Examining Exposure of Motorcycles at Signalized Intersections. Transportation Research Record, 2008, 2048, 60-65.	1.0	37
124	Effect of Red Light Cameras on Accident Risk at Intersections. Transportation Research Record, 2006, 1969, 18-26.	1.0	13