Lu Sun, å-ç'•

List of Publications by Year
in descending order

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75	2,032	236925 25	289244 40
papers	citations	h-index	g-index

77	77	77	1433
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Integrated-Hybrid Framework for Connected and Autonomous Vehicles Microscopic Traffic Flow Modelling. Journal of Advanced Transportation, 2022, 2022, 1-16.	1.7	5
2	Coupled Dynamics of Vehicle-Bridge Interaction System Using High Efficiency Method. Advances in Civil Engineering, 2021, 2021, 1-22.	0.7	0
3	Risk Assessment of Rollover and Skidding due to Pavement Roughness and Differential Settlement for Enhancing Transportation Safety. Journal of Advanced Transportation, 2021, 2021, 1-15.	1.7	3
4	Nonlinear stability analysis for an anticipation-memory car following model in the era of autonomous and connected vehicles. , 2020, , .		6
5	An Asymmetric-Anticipation Car-following Model in the Era of Autonomous-Connected and Human-Driving Vehicles. Journal of Advanced Transportation, 2020, 2020, 1-23.	1.7	9
6	Study on the Influence of Road Geometry on Vehicle Lateral Instability. Journal of Advanced Transportation, 2020, 2020, 1-15.	1.7	10
7	Driverâ€™s Anticipation and Memory Driving Car-Following Model. Journal of Advanced Transportation, 2020, 2020, 1-12.	1.7	8
8	The Influence of Road Geometry on Vehicle Rollover and Skidding. International Journal of Environmental Research and Public Health, 2020, 17, 1648.	2.6	18
9	A forward-looking anticipative viscous high-order continuum model considering two leading vehicles for traffic flow through wireless V2X communication in autonomous and connected vehicle environment. Physica A: Statistical Mechanics and Its Applications, 2020, 556, 124589.	2.6	18
10	A new higher-order viscous continuum traffic flow model considering driver memory in the era of autonomous and connected vehicles. Physica A: Statistical Mechanics and Its Applications, 2020, 547, 123829.	2.6	22
11	Study on the Influence of Road Geometry with Design Speed of 100 km/h on Vehicle Rollover and Skidding. , 2020, , .		0
12	The characterisation of three-dimensional texture morphology of pavement for describing pavement sliding resistance. Road Materials and Pavement Design, 2019, 20, 1076-1095.	4.0	21
13	Effect of overlay thickness, overlay material, and pre-overlay treatment on evolution of asphalt concrete overlay roughness in LTPP SPS-5 experiment: A multilevel model approach. Construction and Building Materials, 2018, 162, 192-201.	7.2	14
14	Shock Wave Based Ray Tracing Method for Travel Time Estimation. , 2018, , .		0
15	Fracture Characteristics of Asphalt Concrete in Mixed-Loading Mode at Low-Temperature Based on Discrete-Element Method. Journal of Materials in Civil Engineering, 2018, 30, .	2.9	16
16	Characterizing Heterogeneity in Driversâ€™ Merging Maneuvers Using Two-Step Cluster Analysis. Journal of Advanced Transportation, 2018, 2018, 1-15.	1.7	17
17	Pavement performance evaluation of recycled styreneâ€“butadieneâ€“styrene-modified asphalt mixture. International Journal of Pavement Engineering, 2017, 18, 404-413.	4.4	15
18	Characterizing air void effect on fracture of asphalt concrete at low-temperature using discrete element method. Engineering Fracture Mechanics, 2017, 170, 23-43.	4.3	51

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19	Asphalt modification using nano-materials and polymers composite considering high and low temperature performance. Construction and Building Materials, 2017, 133, 358-366.	7.2	86
20	Inorganic Nanoparticle-Modified Asphalt with Enhanced Performance at High Temperature. Journal of Materials in Civil Engineering, 2017, 29, .	2.9	26
21	Aging Characteristics of Rubber Modified Asphalts in Different Environmental Factors Combinations. Applied Sciences (Switzerland), 2017, 7, 806.	2.5	15
22	Stochastic Projection-Factoring Method Based on Piecewise Stationary Renewal Processes for Mid- and Long-Term Traffic Flow Modeling and Forecasting. Transportation Science, 2016, 50, 998-1015.	4.4	6
23	Non-contact optical sensing of asphalt mixture deformation using 3D stereo vision. Measurement: Journal of the International Measurement Confederation, 2016, 85, 100-117.	5.0	22
24	Multi-scale wavelet transform filtering of non-uniform pavement surface image background for automated pavement distress identification. Measurement: Journal of the International Measurement Confederation, 2016, 86, 26-40.	5.0	29
25	Generalized Maxwell Viscoelastic Contact Model-Based Discrete Element Method for Characterizing Low-Temperature Properties of Asphalt Concrete. Journal of Materials in Civil Engineering, 2016, 28, .	2.9	13
26	Weighted Neighborhood Pixels Segmentation Method for Automated Detection of Cracks on Pavement Surface Images. Journal of Computing in Civil Engineering, 2016, 30, .	4.7	39
27	Spectral and timeâ€frequency analyses of freeway traffic flow. Journal of Advanced Transportation, 2014, 48, 821-857.	1.7	7
28	Evaluation of vehicle-track-bridge interacted system for the continuous CRTS-II non-ballast track slab. Science China Technological Sciences, 2014, 57, 1895-1901.	4.0	29
29	Data mining using regularized adaptive Bâ€splines regression with penalization for multiâ€regime traffic stream models. Journal of Advanced Transportation, 2014, 48, 876-890.	1.7	13
30	Reliability Analysis of Vehicle Stability on Combined Horizontal and Vertical Alignments: Driving Safety Perspective. Journal of Transportation Engineering, 2013, 139, 804-813.	0.9	26
31	An overview of a unified theory of dynamics of vehicleâ€"pavement interaction under moving and stochastic load. Journal of Modern Transportation, 2013, 21, 135-162.	2.5	17
32	A viscoelasticâ€"viscoplastic damage constitutive model for asphalt mixtures based on thermodynamics. International Journal of Plasticity, 2013, 40, 81-100.	8.8	69
33	Mechanistic Rutting Prediction Using a Two-Stage Viscoelastic-Viscoplastic Damage Constitutive Model of Asphalt Mixtures. Journal of Engineering Mechanics - ASCE, 2013, 139, 1577-1591.	2.9	26
34	Finding Reliable Shortest Path in Stochastic Time-dependent Network. Procedia, Social and Behavioral Sciences, 2013, 96, 451-460.	0.5	30
35	Two-Stage Viscoelastic-Viscoplastic Damage Constitutive Model of Asphalt Mixtures. Journal of Materials in Civil Engineering, 2013, 25, 958-971.	2.9	14
36	A serial two-stage viscoelasticâ€"viscoplastic constitutive model with thermodynamical consistency for characterizing time-dependent deformation behavior of asphalt concrete mixtures. Construction and Building Materials, 2013, 40, 584-595.	7.2	25

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37	Dynamic response of top-down cracked asphalt concrete pavement under a half-sinusoidal impact load. Acta Mechanica, 2013, 224, 1865-1877.	2.1	22
38	High-order thin layer method for viscoelastic wave propagation in stratified media. Computer Methods in Applied Mechanics and Engineering, 2013, 257, 65-76.	6.6	24
39	Stress and Deflection Parametric Study of High-Speed Railway CRTS-II Ballastless Track Slab on Elevated Bridge Foundations. Journal of Transportation Engineering, 2013, 139, 1224-1234.	0.9	47
40	Dynamic analysis of coupled train - ladder track - elevated bridge system. Structural Engineering and Mechanics, 2013, 47, 661-678.	1.0	13
41	Reliability-Based Risk Analysis of Roadway Horizontal Curves. Journal of Transportation Engineering, 2012, 138, 1071-1081.	0.9	46
42	Decremental algorithm for adaptive routing incorporating traveler information. Computers and Operations Research, 2012, 39, 3012-3020.	4.0	16
43	Estimation of expected travel time using the method of moment. Canadian Journal of Civil Engineering, 2011, 38, 154-165.	1.3	14
44	Developing Master Curves and Predicting Dynamic Modulus of Polymer-Modified Asphalt Mixtures. Journal of Materials in Civil Engineering, 2011, 23, 131-137.	2.9	54
45	Pavement Condition Assessment Using Fuzzy Logic Theory and Analytic Hierarchy Process. Journal of Transportation Engineering, 2011, 137, 648-655.	0.9	62
46	L-Curve Based Tikhonovâ€™s Regularization Method for Determining Relaxation Modulus From Creep Test. Journal of Applied Mechanics, Transactions ASME, 2011, 78, .	2.2	16
47	Lower bounds for the axial three-index assignment problem. European Journal of Operational Research, 2010, 202, 654-668.	5.7	6
48	Data mining-based adaptive regression for developing equilibrium speedâ€“density relationships. Canadian Journal of Civil Engineering, 2010, 37, 389-400.	1.3	13
49	Steady-State Wave Propagation in Multilayered Viscoelastic Media Excited by a Moving Dynamic Distributed Load. Journal of Applied Mechanics, Transactions ASME, 2009, 76, .	2.2	9
50	Transient Wave Propagation in Multilayered Viscoelastic Media: Theory, Numerical Computation, and Validation. Journal of Applied Mechanics, Transactions ASME, 2008, 75, .	2.2	14
51	Travel time estimation based on piecewise truncated quadratic speed trajectory. Transportation Research, Part A: Policy and Practice, 2008, 42, 173-186.	4.2	33
52	Steady-State Dynamic Response of a Bernoulliâ€“Euler Beam on a Viscoelastic Foundation Subject to a Platoon of Moving Dynamic Loads. Journal of Vibration and Acoustics, Transactions of the ASME, 2008, 130, .	1.6	19
53	Steady-State Dynamic Response of a Kirchhoffâ€™s Slab on Viscoelastic Kelvinâ€™s Foundation to Moving Harmonic Loads. Journal of Applied Mechanics, Transactions ASME, 2007, 74, 1212-1224.	2.2	14
54	Nonstationary Dynamic Pavement Loads Generated by Vehicles Traveling at Varying Speed. Journal of Transportation Engineering, 2007, 133, 252-263.	0.9	17

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55	Arrays of dynamic circular loads moving on an infinite plate. International Journal for Numerical Methods in Engineering, 2007, 71, 652-677.	2.8	12
56	Genetic algorithm-based optimum vehicle suspension design using minimum dynamic pavement load as a design criterion. Journal of Sound and Vibration, 2007, 301, 18-27.	3.9	89
57	Stochastic Spatial Excitation Induced by a Distributed Contact on Homogenous Gaussian Random Fields. Journal of Engineering Mechanics - ASCE, 2006, 132, 714-722.	2.9	13
58	Analytical dynamic displacement response of rigid pavements to moving concentrated and line loads. International Journal of Solids and Structures, 2006, 43, 4370-4383.	2.7	50
59	Transient response of a beam on viscoelastic foundation under an impact load during nondestructive testing. Earthquake Engineering and Engineering Vibration, 2005, 4, 325-333.	2.3	8
60	Development of Multiregime Speedâ€"Density Relationships by Cluster Analysis. Transportation Research Record, 2005, 1934, 64-71.	1.9	24
61	Probabilistic Approaches for Pavement Fatigue Cracking Prediction based on Cumulative Damage Using Minerâ€™s Law. Journal of Engineering Mechanics - ASCE, 2005, 131, 546-549.	2.9	21
62	Dynamics of Plate Generated by Moving Harmonic Loads. Journal of Applied Mechanics, Transactions ASME, 2005, 72, 772-777.	2.2	27
63	Development of Multiregime Speed-Density Relationships by Cluster Analysis. Transportation Research Record, 2005, 1934, 64-71.	1.9	31
64	An explicit representation of steady state response of a beam on an elastic foundation to moving harmonic line loads. International Journal for Numerical and Analytical Methods in Geomechanics, 2003, 27, 69-84.	3.3	41
65	Simulation of pavement roughness and IRI based on power spectral density. Mathematics and Computers in Simulation, 2003, 61, 77-88.	4.4	66
66	Empirical-Mechanistic Method Based Stochastic Modeling of Fatigue Damage to Predict Flexible Pavement Cracking for Transportation Infrastructure Management. Journal of Transportation Engineering, 2003, 129, 109-117.	0.9	29
67	Spectral Analysis and Parametric Study of Stochastic Pavement Loads. Journal of Engineering Mechanics - ASCE, 2002, 128, 318-327.	2.9	51
68	Optimum design of â€œroad-friendlyâ€•vehicle suspension systems subjected to rough pavement surfaces. Applied Mathematical Modelling, 2002, 26, 635-652.	4.2	77
69	A closed-form solution of beam on viscoelastic subgrade subjected to moving loads. Computers and Structures, 2002, 80, 1-8.	4.4	67
70	Developing Spectrum-Based Models for International Roughness Index and Present Serviceability Index. Journal of Transportation Engineering, 2001, 127, 463-470.	0.9	25
71	Computer simulation and field measurement of dynamic pavement loading. Mathematics and Computers in Simulation, 2001, 56, 297-313.	4.4	30
72	Dynamic displacement response of beam-type structures to moving line loads. International Journal of Solids and Structures, 2001, 38, 8869-8878.	2.7	68

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73	Modeling Indirect Statistics of Surface Roughness. Journal of Transportation Engineering, 2001, 127, 105-111.	0.9	50
74	Closed-Form Representation of Beam Response to Moving Line Loads. Journal of Applied Mechanics, Transactions ASME, 2001, 68, 348-350.	2.2	14
75	Predicting Vertical Dynamic Loads Caused by Vehicle-Pavement Interaction. Journal of Transportation Engineering, 1998, 124, 470-478.	0.9	70