Jiwang Jiang

List of Publications by Year
in descending order

62 papers	1,351 citations	361388 20 h-index	377849 34 g-index
62 all docs	62 docs citations	62 times ranked	658 citing authors

#	ARTICLE	IF	CITATIONS
1	Distribution of mortar film thickness and its relationship to mixture cracking resistance. International Journal of Pavement Engineering, 2022, 23, 824-833.	4.4	25
2	Improving the calculation accuracy of FEM for asphalt mixtures in simulation of SCB test considering the mesostructure characteristics. International Journal of Pavement Engineering, 2022, 23, 80-94.	4.4	13
3	Factors Affecting Mortar Thickness Distribution and Its Relationship to Cracking Resistance of Asphalt Mixtures. RILEM Bookseries, 2022, , 919-926.	0.4	0
4	Internal structure change of porous asphalt concrete under coupled conditions of load, moisture and temperature. Construction and Building Materials, 2022, 314, 125603.	7.2	4
5	Modelling of pavement performance evolution considering uncertainty and interpretability: a machine learning based framework. International Journal of Pavement Engineering, 2022, 23, 5211-5226.	4.4	15
6	Environmental and economic assessment of collective recycling waste plastic and reclaimed asphalt pavement into pavement construction: A case study in Hong Kong. Journal of Cleaner Production, 2022, 336, 130405.	9.3	51
7	Numerical study of the aggregate contact effect on the complex modulus of asphalt concrete. Materials and Design, 2022, 213, 110342.	7.0	13
8	Large-Scale Maintenance and Rehabilitation Optimization for Multi-Lane Highway Asphalt Pavement: A Reinforcement Learning Approach. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 22094-22105.	8.0	12
9	Moisture migration of bitumen emulsion-based cold in-place recycling pavement after compaction: Real-time field measurement and laboratory investigation. Journal of Cleaner Production, 2022, 360, 132213.	9.3	11
10	Asphalt pavement density measurement using non-destructive testing methods: current practices, challenges, and future vision. Construction and Building Materials, 2022, 344, 128154.	7.2	21
11	Factors controlling pre- and post-peak behavior of asphalt mixtures containing RAP in the SCB test. Materials and Structures/Materiaux Et Constructions, 2022, 55, .	3.1	3
12	Characterization of mortar film distribution of asphalt mixtures containing reclaimed asphalt pavement and its relationship with fracture performance using image analysis method. Construction and Building Materials, 2022, 345, 128338.	7.2	5
13	Feasibility and performance of the Semi-circular Bending test in evaluating the low-temperature performance of asphalt mortar. Construction and Building Materials, 2021, 269, 121305.	7.2	18
14	Characterization of the interconnected pore and its relationship to the directional permeability of porous asphalt mixture. Construction and Building Materials, 2021, 269, 121233.	7.2	18
15	Effects of design parameters and moisture conditions on interface bond strength between thin friction course (TFC) and underlying asphalt pavements. Construction and Building Materials, 2021, 269, 121347.	7.2	8
16	Meso-structure image pre-selection method for two-dimensional finite element modeling in beam bending simulation of asphalt mixture. Construction and Building Materials, 2021, 268, 121129.	7.2	10
17	Investigation of the raveling potential of thin friction course (TFC) under freeze–thaw conditions. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	3.1	5
18	3D-Reconstruction and characterization of the pore microstructure within the asphalt FAM using the X-ray micro-computed tomography. Construction and Building Materials, 2021, 272, 121764.	7.2	15

#	Article	IF	Citations
19	Application and Improvement of Discrete Finite-Element Method for Mesoscale Fracture Analysis of Asphalt Mixtures. Journal of Transportation Engineering Part B: Pavements, 2021, 147, 04021001.	1.5	5
20	Nondestructive prediction of rutting resistance of in-service middle asphalt layer based on gene expression programing. Construction and Building Materials, 2021, 293, 123481.	7.2	12
21	New innovations in pavement materials and engineering: A review on pavement engineering research 2021. Journal of Traffic and Transportation Engineering (English Edition), 2021, 8, 815-999.	4.2	59
22	Improving the high-temperature performance of cold recycled mixtures by polymer-modified asphalt emulsion. International Journal of Pavement Engineering, 2020, 21, 41-48.	4.4	40
23	Developing a load-temperature master curve for the permanent deformation of asphalt mixtures by the power function model. Road Materials and Pavement Design, 2020, 21, 1359-1373.	4.0	2
24	Performance Evaluation of Long-Span Suspension Bridge Pavement Based on Long-Term Maintenance Data. Journal of Materials in Civil Engineering, 2020, 32, .	2.9	6
25	Accuracy Improvement for Two-Dimensional Finite-Element Modeling while Considering Asphalt Mixture Meso-Structure Characteristics in Indirect Tensile Test Simulation. Journal of Materials in Civil Engineering, 2020, 32, .	2.9	13
26	Factors Affecting Maintenance Probability and Resurfacing Thickness Based on the Pavement Management System. Advances in Civil Engineering, 2020, 2020, 1-9.	0.7	0
27	Correlation investigation of fatigue indices of fine aggregate matrix (FAM) and asphalt mixture containing reclaimed asphalt pavement materials. Construction and Building Materials, 2020, 262, 120646.	7.2	17
28	Sustainable Urban Street Comprising Permeable Pavement and Bioretention Facilities: A Practice. Sustainability, 2020, 12, 8288.	3.2	11
29	Deep reinforcement learning for long‐term pavement maintenance planning. Computer-Aided Civil and Infrastructure Engineering, 2020, 35, 1230-1245.	9.8	85
30	Effect of cohesive and adhesive parameters on the moisture resistance of thin friction course (TFC) with varying mix design parameters. Construction and Building Materials, 2020, 258, 119420.	7.2	8
31	Effect of binder film distribution on the fatigue characteristics of asphalt Binder/Filler composite based on image analysis method. Construction and Building Materials, 2020, 260, 119876.	7.2	15
32	Factors affecting the rutting resistance of asphalt pavement based on the field cores using multi-sequenced repeated loading test. Construction and Building Materials, 2020, 253, 118902.	7.2	19
33	Thermal Property Evaluation of Porous Asphalt Concrete Based on Heterogeneous Meso-Structure Finite Element Simulation. Applied Sciences (Switzerland), 2020, 10, 1671.	2.5	15
34	High-temperature failure of porous asphalt mixture under wheel loading based on 2D air void structure analysis. Construction and Building Materials, 2020, 252, 119051.	7.2	18
35	Laboratory evaluation of rutting resistance for asphalt binders and mixtures modified with different thermochromic microcapsule powders. Construction and Building Materials, 2020, 252, 119099.	7.2	11
36	Evaluation of the Rheological Property of Binder-Filler Systems after Oxidation Based on a Simple Film Oven Aging Method. Applied Sciences (Switzerland), 2019, 9, 2542.	2.5	0

#	Article	IF	Citations
37	Fractal evaluation of the rutting development for multilayer pavement by wheel tracking test. Construction and Building Materials, 2019, 222, 706-716.	7.2	8
38	Evaluation of aggregate packing based on thickness distribution of asphalt binder, mastic and mortar within asphalt mixtures using multiscale methods. Construction and Building Materials, 2019, 222, 717-730.	7.2	32
39	Fatigue Cracking Resistance of Engineered Cementitious Composites (ECC) under Working Condition of Orthotropic Steel Bridge Decks Pavement. Applied Sciences (Switzerland), 2019, 9, 3577.	2.5	16
40	Factors affecting raveling resistance of cold-mixed ultra-thin chip seal. International Journal of Pavement Research and Technology, 2019, 12, 553-560.	2.6	5
41	Establishment of Prediction Models of Asphalt Pavement Performance based on a Novel Data Calibration Method and Neural Network. Transportation Research Record, 2019, 2673, 66-82.	1.9	47
42	Fatigue cracking performance evaluation of laboratory-produced polymer modified asphalt mixture containing reclaimed asphalt pavement material. Construction and Building Materials, 2019, 216, 379-389.	7.2	37
43	Characterization of interconnectivity, size distribution and uniformity of air voids in porous asphalt concrete using X-ray CT scanning images. Construction and Building Materials, 2019, 213, 182-193.	7.2	67
44	Investigation of the internal structure change of two-layer asphalt mixtures during the wheel tracking test based on 2D image analysis. Construction and Building Materials, 2019, 209, 66-76.	7.2	62
45	Effectiveness and Cost-Effectiveness Evaluation of Pavement Treatments Using Life-Cycle Cost Analysis. Journal of Transportation Engineering Part B: Pavements, 2019, 145, 04019006.	1.5	22
46	Evaluation of the healing potential of asphalt mixtures based on a modified semi-circular bending test. Construction and Building Materials, 2019, 196, 284-294.	7.2	40
47	Effects of Loading Rate and Temperature on Cracking Resistance Characteristics of Asphalt Mixtures Using Nonnotched Semicircular Bending Tests. Journal of Testing and Evaluation, 2019, 47, 2649-2663.	0.7	10
48	Characterization and identification of asphalt mixtures based on Convolutional Neural Network methods using X-ray scanning images. Construction and Building Materials, 2018, 174, 72-80.	7.2	52
49	Evaluation of permanent deformation of multilayer porous asphalt courses using an advanced multiply-repeated load test. Construction and Building Materials, 2018, 160, 19-29.	7.2	28
50	Development of Permanent Deformation Master Curves of Asphalt Mixtures by Load-Temperature Superposition. Journal of Materials in Civil Engineering, 2018, 30, .	2.9	4
51	Experimental analysis of skeleton strength of porous asphalt mixtures. Construction and Building Materials, 2018, 171, 13-21.	7.2	43
52	Fatigue damage model of stone matrix asphalt with polymer modified binder based on tensile strain evolution and residual strength degradation using digital image correlation methods. Measurement: Journal of the International Measurement Confederation, 2018, 123, 30-38.	5.0	51
53	Research on the fatigue equation of asphalt mixtures based on actual stress ratio using semi-circular bending test. Construction and Building Materials, 2018, 158, 996-1002.	7.2	45
54	Evaluating the mastic distribution of asphalt mixtures based on a new thickness threshold using 2D image planers. Road Materials and Pavement Design, 2018, 19, 1422-1435.	4.0	22

#	Article	IF	Citations
55	Influence of Aggregate Geometric Features on Permanent Deformation of Asphalt Mixture Based on Image Processing and Data Mining. , 2018, , .		0
56	Nonrecoverable Behavior of Polymer Modified and Reclaimed Asphalt Pavement Modified Binder under Different Multiple Stress Creep Recovery Tests. Transportation Research Record, 2018, 2672, 324-336.	1.9	14
57	Evaluation of Susceptibility of High-Temperature Performance of Asphalt Mixture to Morphological Feature of Aggregates by Fractal Theory. Journal of Materials in Civil Engineering, 2018, 30, 06018018.	2.9	10
58	Characterization of permanent deformation performance of asphalt mixture by multi-sequenced repeated load test. Construction and Building Materials, 2018, 180, 425-436.	7.2	20
59	Effect of the contact structure characteristics on rutting performance in asphalt mixtures using 2D imaging analysis. Construction and Building Materials, 2017, 136, 426-435.	7.2	69
60	Heterogeneous fracture simulation of asphalt mixture under SCB test with cohesive crack model. Road Materials and Pavement Design, 2017, 18, 1411-1422.	4.0	30
61	Developing an optional multiple repeated load test to evaluate permanent deformation of asphalt mixtures based on axle load spectrum. Construction and Building Materials, 2016, 122, 254-263.	7.2	31
62	Test and Evaluation for Bonding Property Between GFRP and Concrete. Journal of Testing and Evaluation, 2016, 44, 878-884.	0.7	3