ValÃ©ri L Markine

List of Publications by Year
in descending order

49 papers	1,326 citations	318942 23 h-index	425179 34 g-index
49 all docs	49 docs citations	49 times ranked	714 citing authors

#	Article	IF	Citations
1	Numerical analysis of train-track-subgrade dynamic performance with crumb rubber in ballast layer. Construction and Building Materials, 2022, 336, 127559.	3.2	17
2	Sleepers Spacing Analysis in Railway Track Infrastructure. Infrastructures, 2022, 7, 83.	1.4	7
3	Railway ballast material selection and evaluation: A review. Construction and Building Materials, 2022, 344, 128218.	3.2	20
4	Rheology study of ballast-sleeper interaction with particle image Velocimetry (PIV) and discrete element modelling (DEM). Construction and Building Materials, 2021, 282, 122710.	3.2	13
5	Experimental and numerical study on lateral resistance of frictional sleeper with arrowhead groove. Transportation Geotechnics, 2021, 30, 100638.	2.0	6
6	Review of ballast track tamping: Mechanism, challenges and solutions. Construction and Building Materials, 2021, 300, 123940.	3.2	35
7	Discrete element modelling of railway ballast performance considering particle shape and rolling resistance. Railway Engineering Science, 2020, 28, 382-407.	2.7	26
8	Ballast Mechanical Performance with and without Under Sleeper Pads. KSCE Journal of Civil Engineering, 2020, 24, 3202-3217.	0.9	11
9	Calibration for discrete element modelling of railway ballast: A review. Transportation Geotechnics, 2020, 23, 100341.	2.0	63
10	Train Hunting Related Fast Degradation of a Railway Crossingâ€"Condition Monitoring and Numerical Verification. Sensors, 2020, 20, 2278.	2.1	12
11	Effect of sleeper bottom texture on lateral resistance with discrete element modelling. Construction and Building Materials, 2020, 250, 118770.	3.2	27
12	Discrete Element Modelling of Rubber-Protected Ballast Performance Subjected to Direct Shear Test and Cyclic Loading. Sustainability, 2020, 12, 2836.	1.6	18
13	MBS Vehicleâ€"Crossing Model for Crossing Structural Health Monitoring. Sensors, 2020, 20, 2880.	2.1	3
14	Integrated Tool for Assessment of Performance of Railway Crossings. Lecture Notes in Mechanical Engineering, 2020, , 142-147.	0.3	0
15	Dynamic behaviour of the track in transitions zones considering the differential settlement. Journal of Sound and Vibration, 2019, 459, 114863.	2.1	37
16	Experimental and numerical investigations on the shear behaviour of recycled railway ballast. Construction and Building Materials, 2019, 217, 310-320.	3.2	32
17	Polyurethane reinforced ballasted track: Review, innovation and challenge. Construction and Building Materials, 2019, 208, 734-748.	3.2	62
18	Effects of crumb rubber size and percentage on degradation reduction of railway ballast. Construction and Building Materials, 2019, 212, 210-224.	3.2	40

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19	Image analysis for morphology, rheology and degradation study of railway ballast: A review. Transportation Geotechnics, 2019, 18, 173-211.	2.0	54
20	Effect of wheelâ€“rail interface parameters on contact stability in explicit finite element analysis. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 1879-1894.	1.3	10
21	Modelling of the long-term behaviour of transition zones: Prediction of track settlement. Engineering Structures, 2018, 156, 294-304.	2.6	45
22	Improving the performance of finite element simulations on the wheelâ€“rail interaction by using a coupling strategy. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 1741-1757.	1.3	4
23	Experimental analysis of railway track settlement in transition zones. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 1774-1789.	1.3	32
24	Ballast degradation: Effect of particle size and shape using Los Angeles Abrasion test and image analysis. Construction and Building Materials, 2018, 169, 414-424.	3.2	92
25	Methodology for the comprehensive analysis of railway transition zones. Computers and Geotechnics, 2018, 99, 64-79.	2.3	29
26	Analysis of the effect of repair welding/grinding on the performance of railway crossings using field measurements and finite element modeling. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 798-815.	1.3	7
27	Modelling and experimental validation of dynamic impact in 1:9 railway crossing panel. Tribology International, 2018, 118, 208-226.	3.0	31
28	Structural Health Monitoring of Railway Transition Zones Using Satellite Radar Data. Sensors, 2018, 18, 413.	2.1	35
29	Corrective countermeasure for track transition zones in railways: Adjustable fastener. Engineering Structures, 2018, 169, 1-14.	2.6	29
30	Modelling verification and influence of operational patterns on tribological behaviour of wheel-rail interaction. Tribology International, 2017, 114, 264-281.	3.0	16
31	Analysis of the Dynamic Wheel Loads in Railway Transition Zones Considering the Moisture Condition of the Ballast and Subballast. Applied Sciences (Switzerland), 2017, 7, 1208.	1.3	28
32	The Influence of Train Running Direction and Track Supports Position on the Behaviour of Transition Zones. Transportation Research Procedia, 2016, 18, 281-288.	0.8	6
33	Optimisation of the elastic track properties of turnout crossings. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2016, 230, 360-373.	1.3	25
34	Robust optimisation of railway crossing geometry. Vehicle System Dynamics, 2016, 54, 617-637.	2.2	11
35	Numerical analysis of the dynamic interaction between wheel set and turnout crossing using the explicit finite element method. Vehicle System Dynamics, 2016, 54, 301-327.	2.2	36
36	Parametric study of wheel transitions at railway crossings. Vehicle System Dynamics, 2015, 53, 1876-1901.	2.2	16

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37	Optimisation of the dynamic properties of ladder track to minimise the chance of rail corrugation. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2014, 228, 285-297.	1.3	17
38	Improvement of vehicleâ€"turnout interaction by optimising the shape of crossing nose. Vehicle System Dynamics, 2014, 52, 1517-1540.	2.2	57
39	Analysis of train/turnout vertical interaction using a fast numerical model and validation of that model. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2014, 228, 730-743.	1.3	22
40	Optimization of the dynamic properties of the ladder track system to control rail vibration using the multipoint approximation method. JVC/Journal of Vibration and Control, 2014, 20, 1967-1984.	1.5	10
41	Analytical study on the dynamic displacement response of a curved track subjected to moving loads. Journal of Zhejiang University: Science A, 2013, 14, 867-879.	1.3	9
42	Metro train-induced vibrations on historic buildings in Chengdu, China. Journal of Zhejiang University: Science A, 2011, 12, 782-793.	1.3	34
43	Combatting RCF on switch points by tuning elastic track properties. Wear, 2011, 271, 158-167.	1.5	49
44	Design of railway wheel profile taking into account rolling contact fatigue and wear. Wear, 2008, 265, 1273-1282.	1.5	47
45	An inverse shape design method for railway wheel profiles. Structural and Multidisciplinary Optimization, 2007, 33, 243-253.	1.7	36
46	Optimal design of wheel profile for railway vehicles. Wear, 2005, 258, 1022-1030.	1.5	85
47	Design Calculations for Embedded Rail in Asphalt. Transportation Research Record, 2003, 1825, 28-37.	1.0	7
48	MULTILEVEL OPTIMIZATION OF THE DYNAMIC BEHAVIOUR OF A LINEAR MECHANICAL SYSTEM WITH MULTIPOINT APPROXIMATION. Engineering Optimization, 1996, 25, 295-307.	1.5	4
49	Experimental and numerical study on lateral and longitudinal resistance of ballasted track with nailed sleeper. International Journal of Rail Transportation, 0, , 1-19.	1.8	14