JosÃ© L Escalona

List of Publications by Year
in descending order

50 papers	1,124 citations	516215 16 h-index	414034 32 g-index
50 all docs	50 docs citations	50 times ranked	600 citing authors

#	Article	IF	Citations
1	Experimental measurement of track irregularities using a scaled track recording vehicle and Kalman filtering techniques. Mechanical Systems and Signal Processing, 2022, 169, 108625.	4.4	9
2	Comparison of numerical and computational aspects between two constraint-based contact methods in the description of wheel/rail contacts. Multibody System Dynamics, 2022, 54, 303-344.	1.7	4
3	Advances in the modeling and dynamic simulation of reeving systems using the arbitrary Lagrangianâ€“Eulerian modal method. Nonlinear Dynamics, 2022, 108, 3985-4003.	2.7	2
4	The explanation of two semi-recursive multibody methods for educational purpose. Mechanism and Machine Theory, 2022, 175, 104935.	2.7	5
5	Modeling viscous damping for transverse oscillations in reeving systems using the Arbitrary Lagrangianâ€“Eulerian Modal approach. Journal of Sound and Vibration, 2022, 534, 117009.	2.1	4
6	Design and manufacture of a scaled railway track with mechanically variable geometry. Scientific Reports, 2022, 12, .	1.6	0
7	Wheelâ€“rail contact simulation with lookup tables and KEC profiles: a comparative study. Multibody System Dynamics, 2021, 52, 339-375.	1.7	6
8	A Track Geometry Measuring System Based on Multibody Kinematics, Inertial Sensors and Computer Vision. Sensors, 2021, 21, 683.	2.1	16
9	Measurement of railroad track irregularities using an automated recording vehicle. Measurement: Journal of the International Measurement Confederation, 2021, 183, 109765.	2.5	11
10	Track frame approach for heading and attitude estimation in operating railways using on-board MEMS sensor and encoder. Measurement: Journal of the International Measurement Confederation, 2021, 184, 109898.	2.5	7
11	Railway multibody simulation with the knife-edge-equivalent wheelâ€“rail constraint equations. Multibody System Dynamics, 2020, 48, 373-402.	1.7	14
12	Wheel-rail contact force measurement using strain gauges and distance lasers on a scaled railway vehicle. Mechanical Systems and Signal Processing, 2020, 138, 106555.	4.4	27
13	Application and Experimental Validation of a Multibody Model with Weakly Coupled Lateral and Vertical Dynamics to a Scaled Railway Vehicle. Sensors, 2020, 20, 3700.	2.1	8
14	Artificial neural networks applied to the measurement of lateral wheel-rail contact force: A comparison with a harmonic cancellation method. Mechanism and Machine Theory, 2020, 153, 103968.	2.7	26
15	Analysis of the two-point wheel-rail contact scenario using the knife-edge-equivalent contact constraint method. Mechanism and Machine Theory, 2020, 148, 103803.	2.7	18
16	On the Double-Point Wheel-Rail Contact Situation Using Simplified Constraints. A Preliminary Study. Lecture Notes in Mechanical Engineering, 2020, , 686-693.	0.3	0
17	Multibody model of railway vehicles with weakly coupled vertical and lateral dynamics. Mechanical Systems and Signal Processing, 2019, 115, 570-592.	4.4	40
18	Multibody simulation of railway vehicles with contact lookup tables. International Journal of Mechanical Sciences, 2019, 155, 571-582.	3.6	35

#	Article	IF	Citations
19	Flexible multibody modeling of reeving systems including transverse vibrations. Multibody System Dynamics, 2018, 44, 107-133.	1.7	15
20	Validation of multibody modeling and simulation using an instrumented bicycle: from the computer to the road. Multibody System Dynamics, 2018, 43, 297-319.	1.7	6
21	Efficient Wheel-Rail Contact Model for the On-Line Estimation of Contact Forces. , 2018, , .		0
22	A touchdown bearing with surface waviness: Friction loss analysis. Mechanism and Machine Theory, 2017, 110, 73-84.	2.7	18
23	An arbitrary Lagrangianâ€“Eulerian discretization method for modeling and simulation of reeving systems in multibody dynamics. Mechanism and Machine Theory, 2017, 112, 1-21.	2.7	46
24	A touchdown bearing with surface waviness: A dynamic model using a multibody approach. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2017, 231, 658-669.	0.5	3
25	On the design of a scaled railroad vehicle for the validation of computational models. Mechanism and Machine Theory, 2017, 115, 60-76.	2.7	16
26	Models for dynamic analysis of backup ball bearings of an AMB-system. Mechanical Systems and Signal Processing, 2017, 95, 324-344.	4.4	16
27	Analytical and Numerical Validation of a Moving Modes Method for Traveling Interaction on Long Structures. Journal of Computational and Nonlinear Dynamics, 2016, 11, .	0.7	0
28	A nonlinear approach for modeling rail flexibility using the absolute nodal coordinate formulation. Nonlinear Dynamics, 2016, 83, 463-481.	2.7	14
29	Dynamics of the coupled railway vehicleâ€“flexible track system with irregularities using a multibody approach with moving modes. Vehicle System Dynamics, 2014, 52, 45-67.	2.2	14
30	Stability Analysis of Multibody Systems With Long Flexible Bodies Using the Moving Modes Method and Its Application to Railroad Dynamics. Journal of Computational and Nonlinear Dynamics, 2014, 9, .	0.7	9
31	Application of the trajectory coordinate system and the moving modes method approach to railroad dynamics using Krylov subspaces. Journal of Sound and Vibration, 2013, 332, 5177-5191.	2.1	8
32	Modelling of structural flexiblity in multibody railroad vehicle systems. Vehicle System Dynamics, 2013, 51, 1027-1058.	2.2	37
33	Modeling Infinitely Long Flexible Railroad Tracks Using Moving Modes and Krylov Subspaces Techniques. , 2013, , .		0
34	Description of Methods for the Eigenvalue Analysis of Railroad Vehicles Including Track Flexibility. Journal of Computational and Nonlinear Dynamics, 2012, 7, .	0.7	7
35	Use of Finite Element and Finite Segment Methods in Modeling Rail Flexibility: A Comparative Study. Journal of Computational and Nonlinear Dynamics, 2012, 7, .	0.7	8
36	A bicycle model for education in multibody dynamics and real-time interactive simulation. Multibody System Dynamics, 2012, 27, 383-402.	1.7	31

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37	An approach for modeling long flexible bodies with application to railroad dynamics. Multibody System Dynamics, 2011, 26, 135-152.	1.7	20
38	Stability analysis of vehicles on circular motions using multibody dynamics. Nonlinear Dynamics, 2008, 53, 237-250.	2.7	27
39	Three-dimensional formulation of rigid-flexible multibody systems with flexible beam elements. Multibody System Dynamics, 2008, 20, 1-28.	1.7	60
40	A new locking-free shear deformable finite element based on absolute nodal coordinates. Nonlinear Dynamics, 2007, 50, 249-264.	2.7	90
41	Stability and Bifurcation Analysis of a Spinning Space Tether. Journal of Nonlinear Science, 2006, 16, 507-542.	1.0	11
42	Stability and Bifurcation Analysis of a Modified Geometrically Nonlinear Orthotropic Jeffcott Model with Internal Damping. Nonlinear Dynamics, 2005, 42, 137-163.	2.7	5
43	Efficient Evaluation of the Elastic Forces and the Jacobian in the Absolute Nodal Coordinate Formulation. Nonlinear Dynamics, 2004, 35, 313-329.	2.7	118
44	Development of elastic force model for wheel/rail contact problems. Journal of Sound and Vibration, 2004, 269, 295-325.	2.1	148
45	Dynamic Analysis of a Light Structure in Outer Space: Short Electrodynamic Tether. Multibody System Dynamics, 2003, 10, 125-146.	1.7	11
46	Formulation of Three-Dimensional Joint Constraints Using the Absolute Nodal Coordinates. Nonlinear Dynamics, 2003, 31, 167-195.	2.7	127
47	Reference motion in deformable bodies under rigid body motion and vibration. Part I: theory. Journal of Sound and Vibration, 2003, 264, 1045-1056.	2.1	7
48	Reference motion in deformable bodies under rigid body motion and vibration. Part II: evaluation of the coefficient of restitution for impacts. Journal of Sound and Vibration, 2003, 264, 1057-1072.	2.1	5
49	Title is missing!. Multibody System Dynamics, 2002, 7, 209-228.	1.7	3
50	On the Use of the Restitution Condition in Flexible Body Dynamics. Nonlinear Dynamics, 2002, 30, 71-86.	2.7	12