

# Daniel Garcia-Vallejo

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3505863/publications.pdf>

Version: 2024-02-01

43  
papers

961  
citations

566801

15  
h-index

454577

30  
g-index

46  
all docs

46  
docs citations

46  
times ranked

589  
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient Evaluation of the Elastic Forces and the Jacobian in the Absolute Nodal Coordinate Formulation. <i>Nonlinear Dynamics</i> , 2004, 35, 313-329.	2.7	118
2	Modeling of Belt-Drives Using a Large Deformation Finite Element Formulation. <i>Nonlinear Dynamics</i> , 2006, 43, 239-256.	2.7	105
3	A new locking-free shear deformable finite element based on absolute nodal coordinates. <i>Nonlinear Dynamics</i> , 2007, 50, 249-264.	2.7	90
4	An Internal Damping Model for the Absolute Nodal Coordinate Formulation. <i>Nonlinear Dynamics</i> , 2005, 42, 347-369.	2.7	82
5	Describing Rigid-Flexible Multibody Systems Using Absolute Coordinates. <i>Nonlinear Dynamics</i> , 2003, 34, 75-94.	2.7	76
6	Three-dimensional formulation of rigid-flexible multibody systems with flexible beam elements. <i>Multibody System Dynamics</i> , 2008, 20, 1-28.	1.7	60
7	Study of the Geometric Stiffening Effect: Comparison of Different Formulations. <i>Multibody System Dynamics</i> , 2004, 11, 321-341.	1.7	53
8	Dynamic modeling of a radially multilayered tether cable for a remotely-operated underwater vehicle (ROV) based on the absolute nodal coordinate formulation (ANCF). <i>Mechanism and Machine Theory</i> , 2020, 153, 103961.	2.7	42
9	Direct sensitivity analysis of multibody systems with holonomic and nonholonomic constraints via an index-3 augmented Lagrangian formulation with projections. <i>Nonlinear Dynamics</i> , 2018, 93, 2039-2056.	2.7	29
10	Simple formulations of imposing moments and evaluating joint reaction forces for rigid-flexible multibody systems. <i>Nonlinear Dynamics</i> , 2012, 69, 127-147.	2.7	27
11	Stability analysis of a substructured model of the rotating beam. <i>Nonlinear Dynamics</i> , 2009, 55, 355-372.	2.7	25
12	Design and analysis of a flexible linkage for robot safe operation in collaborative scenarios. <i>Mechanism and Machine Theory</i> , 2015, 92, 1-16.	2.7	23
13	3D-Simulation of human walking by parameter optimization. <i>Archive of Applied Mechanics</i> , 2012, 82, 533-556.	1.2	20
14	On the design of a scaled railroad vehicle for the validation of computational models. <i>Mechanism and Machine Theory</i> , 2017, 115, 60-76.	2.7	16
15	Design of Three New Cam-Based Constant-Force Mechanisms. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2018, 140, .	1.7	16
16	Linearization approaches for general multibody systems validated through stability analysis of a benchmark bicycle model. <i>Nonlinear Dynamics</i> , 2021, 103, 557-580.	2.7	15
17	On the theory and application of absolute coordinates-based multibody modelling of the rigid-flexible coupled dynamics of a deep-sea ROV-TMS (tether management system) integrated model. <i>Ocean Engineering</i> , 2022, 258, 111748.	1.9	14
18	Dynamical analysis and design of active orthoses for spinal cord injured subjects by aesthetic and energetic optimization. <i>Nonlinear Dynamics</i> , 2016, 84, 559-581.	2.7	13

#	ARTICLE	IF	CITATIONS
19	A Flexible Multibody Model of a Safety Robot Arm for Experimental Validation and Analysis of Design Parameters. <i>Journal of Computational and Nonlinear Dynamics</i> , 2014, 9, .	0.7	11
20	A rotary and reciprocating scintillator based fast-ion loss detector for the MAST-U tokamak. <i>Review of Scientific Instruments</i> , 2018, 89, 101112.	0.6	11
21	Design and analysis of a constant-force bench press. <i>Mechanism and Machine Theory</i> , 2019, 142, 103612.	2.7	10
22	Analytical and numerical study of the influence of different support types in the nonlinear vibrations of beams. <i>European Journal of Mechanics, A/Solids</i> , 2021, 85, 104113.	2.1	10
23	Finite element analysis of the geometric stiffening effect. Part 1: A correction in the floating frame of reference formulation. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2005, 219, 187-202.	0.5	9
24	Finite element analysis of the geometric stiffening effect. Part 2: Non-linear elasticity. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2005, 219, 203-211.	0.5	8
25	A fast feedback controlled magnetic drive for the ASDEX Upgrade fast-ion loss detectors. <i>Review of Scientific Instruments</i> , 2016, 87, 11E705.	0.6	8
26	A New Electromechanical Analogy Approach Based on Electrostatic Coupling for Vertical Dynamic Analysis of Planar Vehicle Models. <i>IEEE Access</i> , 2021, 9, 119492-119502.	2.6	8
27	Nonlinear modelling and simulation of vibrocompaction processes. <i>International Journal of Non-Linear Mechanics</i> , 2018, 102, 101-111.	1.4	6
28	Study of the forward locomotion of a three-dimensional multibody model of a Waveboard by inverse dynamics. <i>Mechanism and Machine Theory</i> , 2020, 149, 103826.	2.7	6
29	Detection of Communities within the Multibody System Dynamics Network and Analysis of Their Relations. <i>Symmetry</i> , 2019, 11, 1525.	1.1	6
30	Walking dynamics from mechanism models to parameter optimization. <i>Procedia IUTAM</i> , 2011, 2, 199-211.	1.2	5
31	Linear stability analysis of nonholonomic multibody systems. <i>International Journal of Mechanical Sciences</i> , 2021, 198, 106392.	3.6	5
32	Nonlinear solutions for the steady state oscillations of a clamped-free rotating beam. <i>European Journal of Mechanics, A/Solids</i> , 2022, 91, 104413.	2.1	5
33	Thermo-mechanical assessment of the JT-60SA fast-ion loss detector. <i>Fusion Engineering and Design</i> , 2021, 167, 112304.	1.0	4
34	Experimental validation of a constant-force mechanism and analysis of its performance with a calibrated multibody model. <i>Mechanism and Machine Theory</i> , 2022, 173, 104819.	2.7	4
35	A fast model to resolve the velocity-space of fast-ion losses detected in ASDEX Upgrade and MAST Upgrade. <i>Journal of Instrumentation</i> , 2019, 14, C09015-C09015.	0.5	3
36	Design of trajectories and torques by parameter optimization for the bench press exercise on a Smith machine. <i>Mechanism and Machine Theory</i> , 2021, 155, 104089.	2.7	3

#	ARTICLE	IF	CITATIONS
37	Role of Link Flexibility and Variable Stiffness Actuator on Collision Safety for Service Robots. Mechanisms and Machine Science, 2013, , 499-507.	0.3	2
38	Stability analysis of a waveboard multibody model with toroidal wheels. Multibody System Dynamics, 2021, 53, 173-203.	1.7	2
39	Linear Stability Analysis of a Bicycle Multibody Model with Toroidal Wheels. , 2022, , 477-487.		2
40	Stability and Bifurcation Analysis of a Rotating Beam Substructured Model. , 2009, , .		1
41	Using simple estimates for the flexural stiffness of thick FDM beams based on sandwich beam models. Rapid Prototyping Journal, 2021, 27, 120-130.	1.6	1
42	Formulation of Three-Dimensional Rigid-Flexible Multibody Systems. , 2007, , 1091.		0
43	Study of the Contribution of Nonlinear Normal Modes (NNMs) in Large Amplitude Oscillations of Simply Supported Beams. Procedia Engineering, 2017, 199, 625-630.	1.2	0