

# Arturo Montoya

## List of Publications by Year in descending order

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37  
papers

489  
citations

933447

10  
h-index

677142

22  
g-index

38  
all docs

38  
docs citations

38  
times ranked

395  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tearing energy calculation in hyperelastic fracture mechanics using the local and global complex-variable finite element method. <i>International Journal of Solids and Structures</i> , 2022, 239-240, 111425.	2.7	0
2	Sensitivity Analysis for Transient Thermal Problems Using the Complex-Variable Finite Element Method. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2738.	2.5	3
3	A complex-variable finite element method-based inverse methodology to extract constitutive parameters using experimental data. <i>International Journal of Solids and Structures</i> , 2022, 243, 111545.	2.7	2
4	Geometric Configuration Effects on the Formation of Weld Toe Cracks during the Galvanizing of High Mast Illumination Poles. , 2021, , .		0
5	Structural Vulnerability of Coastal Bridges under a Variety of Hydrodynamic Conditions. , 2021, , .		0
6	Development of a Computational Framework for the Design of Resilient Space Structures. , 2021, , .		1
7	A complex-variable cohesive finite element subroutine to enable efficient determination of interfacial cohesive material parameters. <i>Engineering Fracture Mechanics</i> , 2021, 247, 107638.	4.3	8
8	Uncertainty Quantification Modeling of Structures and Materials Using the Hypercomplex Differentiation Method. , 2021, , .		0
9	Evaluation of a roadway thermoelectric energy harvester through FE analysis and laboratory tests. <i>International Journal of Sustainable Engineering</i> , 2021, 14, 1016-1032.	3.5	3
10	Generation of Periodic Wave Using Lagrange-Plus Remap Finite Element Method for Evaluating the Vulnerability of Coastal Bridges to Extreme Weather Events. , 2021, , .		2
11	A block forward substitution method for solving the hypercomplex finite element system of equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 387, 114195.	6.6	8
12	Harvesting Solar Energy from Asphalt Pavement. <i>Sustainability</i> , 2021, 13, 12807.	3.2	10
13	Explicit Finite Element Analysis of Coastal Bridges under Extreme Hurricane Waves. , 2021, , .		0
14	A Reflective Framework for Performance Management (REFORM) of Real-Time Hybrid Simulation. <i>Frontiers in Built Environment</i> , 2020, 6, 159-171.	2.3	2
15	Numerical Study on Design and Installation of Energy-Harvesting Modules Embedded within a Flexible Pavement Structure. <i>Journal of Transportation Engineering Part B: Pavements</i> , 2020, 146, .	1.5	3
16	Mixed-mode stress intensity factors computation in functionally graded materials using a hypercomplex-variable finite element formulation. <i>International Journal of Fracture</i> , 2020, 226, 219-232.	2.2	5
17	Quaternion and octonion-based finite element analysis methods for computing multiple first order derivatives. <i>Journal of Computational Physics</i> , 2019, 397, 108831.	3.8	5
18	Simulating the hot dip galvanizing process of high mast illumination poles. Part I: Finite element model development. <i>Journal of Constructional Steel Research</i> , 2019, 162, 105705.	3.9	7

#	ARTICLE	IF	CITATIONS
19	A stiffness derivative local hypercomplex-variable finite element method for computing the energy release rate. <i>Engineering Fracture Mechanics</i> , 2019, 218, 106581.	4.3	11
20	Galvanizing-Induced Distortion in Steel Plate Girders. II: Effects of Welding and Galvanizing Practices. <i>Journal of Bridge Engineering</i> , 2019, 24, .	2.9	0
21	Galvanizing-Induced Distortion in Steel Plate Girders. I: Effects of Girder Geometry. <i>Journal of Bridge Engineering</i> , 2019, 24, 04019110.	2.9	1
22	A finite element-based adaptive energy response function method for 2D curvilinear progressive fracture. <i>International Journal of Fatigue</i> , 2019, 127, 229-245.	5.7	10
23	Simulating the hot dip galvanizing process of high mast illumination poles. Part II: Effects of geometrical properties and galvanizing practices. <i>Journal of Constructional Steel Research</i> , 2019, 159, 584-597.	3.9	6
24	Efficient estimate of residual stress variance using complex variable finite element methods. <i>International Journal of Pressure Vessels and Piping</i> , 2019, 173, 101-113.	2.6	8
25	Harvesting kinetic energy from roadway pavement through an electromagnetic speed bump. <i>Applied Energy</i> , 2019, 250, 503-511.	10.1	55
26	A New Complex-valued Thermal Fracture Approach for Evaluating the Structural Integrity of Aircraft Structures. , 2018, , .		0
27	A virtual crack extension method for thermoelastic fracture using a complex-variable finite element method. <i>Engineering Fracture Mechanics</i> , 2018, 192, 328-342.	4.3	10
28	Theoretical and Experimental Evaluation of Two Roadway Piezoelectric-Based Energy Harvesting Prototypes. <i>Journal of Materials in Civil Engineering</i> , 2018, 30, .	2.9	60
29	Complex-Variable Finite-Element Method for Mixed Mode Fracture and Interface Cracks. <i>AIAA Journal</i> , 2018, 56, 4632-4637.	2.6	4
30	A complex-variable virtual crack extension finite element method for elastic-plastic fracture mechanics. <i>Engineering Fracture Mechanics</i> , 2018, 202, 242-258.	4.3	12
31	Sensitivity analysis in thermoelastic problems using the complex finite element method. <i>Journal of Thermal Stresses</i> , 2017, 40, 302-321.	2.0	19
32	Experimental and finite element assessment of three energy harvesting prototypes for roadways. <i>Innovative Infrastructure Solutions</i> , 2017, 2, 1.	2.2	10
33	Residual stress sensitivity analysis using a complex variable finite element method. <i>International Journal of Mechanical Sciences</i> , 2017, 133, 112-120.	6.7	23
34	Energy harvesting from asphalt pavement roadways vehicle-induced stresses: A feasibility study. <i>Applied Energy</i> , 2016, 182, 210-218.	10.1	153
35	Complex finite element sensitivity method for creep analysis. <i>International Journal of Pressure Vessels and Piping</i> , 2015, 132-133, 27-42.	2.6	18
36	Finite-Element Sensitivity for Plasticity Using Complex Variable Methods. <i>Journal of Engineering Mechanics - ASCE</i> , 2015, 141, .	2.9	28

#	ARTICLE	IF	CITATIONS
37	Transient thermomechanical sensitivity analysis using a complex-variable finite element method. Journal of Thermal Stresses, 0, , 1-34.	2.0	0