

# Jesus Martinez-Frutos

## List of Publications by Year in descending order

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Version: 2024-02-01

37  
papers

511  
citations

759233

12  
h-index

713466

21  
g-index

38  
all docs

38  
docs citations

38  
times ranked

330  
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient topology optimization using GPU computing with multilevel granularity. <i>Advances in Engineering Software</i> , 2017, 106, 47-62.	3.8	46
2	Fine-grained GPU implementation of assembly-free iterative solver for finite element problems. <i>Computers and Structures</i> , 2015, 157, 9-18.	4.4	39
3	Large-scale robust topology optimization using multi-GPU systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 311, 393-414.	6.6	38
4	GPU acceleration for evolutionary topology optimization of continuum structures using isosurfaces. <i>Computers and Structures</i> , 2017, 182, 119-136.	4.4	38
5	Kriging-based infill sampling criterion for constraint handling in multi-objective optimization. <i>Journal of Global Optimization</i> , 2016, 64, 97-115.	1.8	37
6	Robust shape optimization of continuous structures via the level set method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 305, 271-291.	6.6	33
7	Efficient matrix-free GPU implementation of Fixed Grid Finite Element Analysis. <i>Finite Elements in Analysis and Design</i> , 2015, 104, 61-71.	3.2	28
8	Risk-averse structural topology optimization under random fields using stochastic expansion methods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 330, 180-206.	6.6	22
9	Large-scale stochastic topology optimization using adaptive mesh refinement and coarsening through a two-level parallelization scheme. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 343, 186-206.	6.6	22
10	Robust Averaged Control of Vibrations for the Bernoulli-Euler Beam Equation. <i>Journal of Optimization Theory and Applications</i> , 2017, 174, 428-454.	1.5	18
11	Structural optimization under internal porosity constraints using topological derivatives. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 345, 1-25.	6.6	16
12	Evolutionary topology optimization of continuum structures under uncertainty using sensitivity analysis and smooth boundary representation. <i>Computers and Structures</i> , 2018, 205, 15-27.	4.4	15
13	Risk-averse approach for topology optimization of fail-safe structures using the level-set method. <i>Computational Mechanics</i> , 2021, 68, 1039-1061.	4.0	13
14	Robust optimal Robin boundary control for the transient heat equation with random input data. <i>International Journal for Numerical Methods in Engineering</i> , 2016, 108, 116-135.	2.8	12
15	Optimal Control of PDEs under Uncertainty. <i>SpringerBriefs in Mathematics</i> , 2018, , .	0.3	12
16	Robust optimal control of stochastic hyperelastic materials. <i>Applied Mathematical Modelling</i> , 2020, 88, 888-904.	4.2	11
17	Robust optimal shape design for an elliptic PDE with uncertainty in its input data. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2015, 21, 901-923.	1.3	10
18	In-silico design of electrode meso-architecture for shape morphing dielectric elastomers. <i>Journal of the Mechanics and Physics of Solids</i> , 2021, 157, 104594.	4.8	9

#	ARTICLE	IF	CITATIONS
19	A Convex Multi-Variable based computational framework for multilayered electro-active polymers. Computer Methods in Applied Mechanics and Engineering, 2021, 374, 113567.	6.6	8
20	Robust topology optimization of continuum structures under uncertain partial collapses. Computers and Structures, 2021, 257, 106677.	4.4	8
21	A new energyâ€momentum time integration scheme for non-linear thermo-mechanics. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113395.	6.6	8
22	Multiplicity of solutions in model-based multiobjective optimization of wastewater treatment plants. Optimization and Engineering, 2021, 22, 1-16.	2.4	7
23	Optimal Control of Soft Materials Using a Hausdorff Distance Functional. SIAM Journal on Control and Optimization, 2021, 59, 393-416.	2.1	7
24	Density-based topology optimisation considering nonlinear electromechanics. Structural and Multidisciplinary Optimization, 2021, 64, 257-280.	3.5	7
25	Topology optimisation of stiffeners layout for shape-morphing of dielectric elastomers. Structural and Multidisciplinary Optimization, 2021, 64, 3681-3703.	3.5	7
26	A new stabilisation approach for level-set based topology optimisation of hyperelastic materials. Structural and Multidisciplinary Optimization, 2019, 60, 2343-2371.	3.5	6
27	Optimal control and design of magnetic field-responsive smart polymer composites. Applied Mathematical Modelling, 2022, 103, 141-161.	4.2	6
28	A thermodynamically consistent time integration scheme for non-linear thermo-electro-mechanics. Computer Methods in Applied Mechanics and Engineering, 2022, 389, 114298.	6.6	6
29	A polynomial chaosâ€based approach to riskâ€averse piezoelectric control of random vibrations of beams. International Journal for Numerical Methods in Engineering, 2018, 115, 738-755.	2.8	5
30	Multi-resolution methods for the topology optimization of nonlinear electro-active polymers at large strains. Computational Mechanics, 2021, 68, 271-293.	4.0	5
31	Metamodel-based multi-objective robust design optimization of structures. WIT Transactions on the Built Environment, 2012, , .	0.0	2
32	Control of Random PDEs: An Overview. SEMA SIMAI Springer Series, 2018, , 193-210.	0.7	2
33	Viscoelastic up-scaling rank-one effects in in-silico modelling of electro-active polymers. Computer Methods in Applied Mechanics and Engineering, 2022, 389, 114358.	6.6	2
34	Mathematical Analysis of Optimal Control Problems Under Uncertainty. SpringerBriefs in Mathematics, 2018, , 31-44.	0.3	1
35	Structural Optimization Under Uncertainty. SpringerBriefs in Mathematics, 2018, , 91-108.	0.3	0
36	Numerical Resolution of Risk Averse Optimal Control Problems. SpringerBriefs in Mathematics, 2018, , 79-90.	0.3	0

#	ARTICLE	IF	CITATIONS
37	Miscellaneous Topics and Open Problems. SpringerBriefs in Mathematics, 2018, , 109-120.	0.3	0