VÃ-ctor D Fachinotti

List of Publications by Year
in descending order

48 papers	1,499 citations	304602 22 h-index	315616 38 g-index
48 all docs	48 docs citations	48 times ranked	1203 citing authors

#	Article	IF	Citations
1	Prediction of wind pressure coefficients on building surfaces using artificial neural networks. Energy and Buildings, 2018, 158, 1429-1441.	3.1	128
2	Finite element modeling of welding processes. Applied Mathematical Modelling, 2011, 35, 688-707.	2.2	107
3	Residential building design optimisation using sensitivity analysis and genetic algorithm. Energy and Buildings, 2016, 133, 853-866.	3.1	99
4	A computational multi-objective optimization method to improve energy efficiency and thermal comfort in dwellings. Energy and Buildings, 2017, 154, 283-294.	3.1	99
5	Application and characterization of metamodels based on artificial neural networks for building performance simulation: A systematic review. Energy and Buildings, 2020, 217, 109972.	3.1	89
6	Computational modelling of shaped metal deposition. International Journal for Numerical Methods in Engineering, 2011, 85, 84-106.	1.5	74
7	Analytical solutions of the thermal field induced by moving double-ellipsoidal and double-elliptical heat sources in a semi-infinite body. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 595-607.	1.0	67
8	An efficient metamodel-based method to carry out multi-objective building performance optimizations. Energy and Buildings, 2020, 206, 109576.	3.1	60
9	ALE method for solidification modelling. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 4355-4381.	3.4	55
10	A fast convergent and accurate temperature model for phase-change heat conduction. International Journal for Numerical Methods in Engineering, 1999, 44, 1863-1884.	1.5	48
11	Finite-element modelling of heat transfer in shaped metal deposition and experimental validation. Acta Materialia, 2012, 60, 6621-6630.	3.8	48
12	Two-phase thermo-mechanical and macrosegregation modelling of binary alloys solidification with emphasis on the secondary cooling stage of steel slab continuous casting processes. International Journal for Numerical Methods in Engineering, 2006, 67, 1341-1384.	1.5	39
13	Finite element modelling of inverse design problems in large deformations anisotropic hyperelasticity. International Journal for Numerical Methods in Engineering, 2008, 74, 894-910.	1.5	34
14	Generation of typical meteorological years for the Argentine Littoral Region. Energy and Buildings, 2016, 129, 432-444.	3.1	34
15	Simultaneous ply-order, ply-number and ply-drop optimization of laminate wind turbine blades using the inverse finite element method. Composite Structures, 2018, 184, 894-903.	3.1	33
16	Optimization-based design of easy-to-make devices for heat flux manipulation. International Journal of Thermal Sciences, 2018, 128, 38-48.	2.6	31
17	A metamodel-based optimization approach to reduce the weight of composite laminated wind turbine blades. Composite Structures, 2018, 194, 345-356.	3.1	30
18	A Brief Review on Thermal Metamaterials for Cloaking and Heat Flux Manipulation. Advanced Engineering Materials, 2020, 22, 1901034.	1.6	28

#	Article	IF	Citations
19	Optimization-based design of a heat flux concentrator. Scientific Reports, 2017, 7, 40591.	1.6	24
20	Optimization-based design of heat flux manipulation devices with emphasis on fabricability. Scientific Reports, 2017, 7, 6261.	1.6	24
21	Implementation of a standard stream-upwind stabilization scheme in the element-free Galerkin based solution of advection-dominated heat transfer problems during solidification in direct chill casting processes. Engineering Analysis With Boundary Elements, 2019, 106, 170-181.	2.0	23
22	Phasewise numerical integration of finite element method applied to solidification processes. International Journal of Heat and Mass Transfer, 2000, 43, 1053-1066.	2.5	22
23	Visco-plastic constitutive models of steel at high temperature. Journal of Materials Processing Technology, 2000, 102, 143-152.	3.1	22
24	Application of the inverse finite element method to design wind turbine blades. Composite Structures, 2017, 161, 160-172.	3.1	22
25	A new method to design compliant mechanisms based on the inverse beam finite element model. Mechanism and Machine Theory, 2013, 65, 14-28.	2.7	19
26	Optimization-based design of an elastostatic cloaking device. Scientific Reports, 2018, 8, 9857.	1.6	18
27	Linear tetrahedral finite elements for thermal shock problems. International Journal of Numerical Methods for Heat and Fluid Flow, 2006, 16, 590-601.	1.6	17
28	An enrichment scheme for solidification problems. Computational Mechanics, 2013, 52, 17-35.	2.2	17
29	Metamaterial for elastostatic cloaking under thermal gradients. Scientific Reports, 2019, 9, 3614.	1.6	14
30	Multiscale design of elastic solids with biomimetic cancellous bone cellular microstructures. Structural and Multidisciplinary Optimization, 2019, 60, 639-661.	1.7	14
31	Computational design of thermo-mechanical metadevices using topology optimization. Applied Mathematical Modelling, 2021, 90, 758-776.	2.2	14
32	A modified sequential gradient-based method for the inverse estimation of transient heat transfer coefficients in non-linear one-dimensional heat conduction problems. International Communications in Heat and Mass Transfer, 2021, 127, 105488.	2.9	14
33	Inverse finite element method for large‐displacement beams. International Journal for Numerical Methods in Engineering, 2010, 84, 1166-1182.	1.5	13
34	Optimization of Multilayered Walls for Building Envelopes Including PCM-Based Composites. Materials, 2020, 13, 2787.	1.3	13
35	Implementation of standard penalty procedures for the solution of incompressible Navier–Stokes equations, employing the element-free Galerkin method. Engineering Analysis With Boundary Elements, 2018, 96, 36-54.	2.0	11
36	Implementation of total variation regularization-based approaches in the solution of linear inverse heat conduction problems concerning the estimation of surface heat fluxes. International Communications in Heat and Mass Transfer, 2021, 125, 105330.	2.9	11

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37	Computational modeling of natural ventilation in low-rise non-rectangular floor-plan buildings. Building Simulation, 2018, 11, 1255-1271.	3.0	10
38	A fixed-mesh Eulerianâ€"Lagrangian approach for stress analysis in continuous casting. International Journal for Numerical Methods in Engineering, 2007, 70, 728-755.	1.5	9
39	Computational design of metadevices for heat flux manipulation considering the transient regime. Numerical Heat Transfer; Part A: Applications, 2019, 76, 648-663.	1.2	9
40	Multiscale design of artificial bones with biomimetic elastic microstructures. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 108, 103748.	1.5	9
41	A plausible extension of standard penalty, streamline upwind and immersed boundary techniques to the improved element-free Galerkin-based solution of incompressible Navierâ€"Stokes equations. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113380.	3.4	8
42	Solving steady-state lid-driven square cavity flows at high Reynolds numbers via a coupled improved element-free Galerkinâ€"reduced integration penalty method. Computers and Mathematics With Applications, 2021, 99, 211-228.	1.4	8
43	Solving heat conduction problems with a moving heat source in arc welding processes via an overlapping nodes scheme based on the improved element-free Galerkin method. International Journal of Heat and Mass Transfer, 2022, 192, 122940.	2.5	8
44	Sensitivity of the thermomechanical response of elastic structures to microstructural changes. International Journal of Solids and Structures, 2015, 69-70, 45-59.	1.3	7
45	Inverse finite element modeling of shells using the degenerate solid approach. Computers and Structures, 2015, 157, 89-98.	2.4	7
46	Inverse finite element analysis using a simple reduced integration hexahedral solid-shell element. Finite Elements in Analysis and Design, 2020, 178, 103440.	1.7	4
47	On the performance of a Chimera-FEM implementation to treat moving heat sources and moving boundaries in time-dependent problems. Finite Elements in Analysis and Design, 2022, 208, 103789.	1.7	3
48	An efficient general curvilinear coordinates finite element method for the linear dynamic study of thickness-independent shells. Latin American Journal of Solids and Structures, 2019, 16, .	0.6	2