Patrice Cartraud

List of Publications by Year
in descending order

55 papers	2,268 citations	257450 24 h-index	223800 46 g-index
57 all docs	57 docs citations	57 times ranked	1487 citing authors

#	Article	IF	Citations
1	A computational approach to handle complex microstructure geometries. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 3163-3177.	6.6	546
2	Homogenization of corrugated core sandwich panels. Composite Structures, 2003, 59, 299-312.	5.8	195
3	Rotor to stator contacts in turbomachines. Review and application. Mechanical Systems and Signal Processing, 2013, 40, 401-420.	8.0	163
4	Validity and limitations of linear analytical models for steel wire strands under axial loading, using a 3D FE model. International Journal of Mechanical Sciences, 2007, 49, 1251-1261.	6.7	129
5	Higher-order effective modeling of periodic heterogeneous beams. I. Asymptotic expansion method. International Journal of Solids and Structures, 2001, 38, 7139-7161.	2.7	88
6	An Xâ€FEM and level set computational approach for imageâ€based modelling: Application to homogenization. International Journal for Numerical Methods in Engineering, 2011, 86, 915-934.	2.8	80
7	Full three-dimensional investigation of structural contact interactions in turbomachines. Journal of Sound and Vibration, 2012, 331, 2578-2601.	3.9	76
8	Computational homogenization of periodic beam-like structures. International Journal of Solids and Structures, 2006, 43, 686-696.	2.7	74
9	Two-dimensional modeling of an aircraft engine structural bladed disk-casing modal interaction. Journal of Sound and Vibration, 2009, 319, 366-391.	3.9	73
10	Modeling of a rotor speed transient response with radial rubbing. Journal of Sound and Vibration, 2010, 329, 527-546.	3.9	69
11	Routes for Efficient Computational Homogenization ofÂNonlinear Materials Using theÂProper Generalized Decompositions. Archives of Computational Methods in Engineering, 2010, 17, 373-391.	10.2	54
12	Image-based computational homogenization and localization: comparison between X-FEM/levelset and voxel-based approaches. Computational Mechanics, 2013, 51, 279-293.	4.0	52
13	Assessment of reduced models for the detection of modal interaction through rotor stator contacts. Journal of Sound and Vibration, 2010, 329, 5546-5562.	3.9	51
14	Analytical modeling of synthetic fiber ropes subjected to axial loads. Part I: A new continuum model for multilayered fibrous structures. International Journal of Solids and Structures, 2007, 44, 2924-2942.	2.7	49
15	Higher-order effective modeling of periodic heterogeneous beams. II. Derivation of the proper boundary conditions for the interior asymptotic solution. International Journal of Solids and Structures, 2001, 38, 7163-7180.	2.7	48
16	Analytical modeling of synthetic fiber ropes. Part II: A linear elastic model for 1+6 fibrous structures. International Journal of Solids and Structures, 2007, 44, 2943-2960.	2.7	48
17	Mechanical modeling of helical structures accounting for translational invariance. Part 1: Static behavior. International Journal of Solids and Structures, 2013, 50, 1373-1382.	2.7	45
18	On the use of the extended finite element method with quadtree/octree meshes. International Journal for Numerical Methods in Engineering, 2011, 86, 717-743.	2.8	44

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19	Continuum modeling of beamlike lattice trusses using averaging methods. Computers and Structures, 1999, 73, 267-279.	4.4	35
20	Dynamic modeling of nylon mooring lines for a floating wind turbine. Applied Ocean Research, 2019, 87, 1-8.	4.1	35
21	Multiâ€scale domain decomposition method for largeâ€scale structural analysis with a zooming technique: Application to plate assembly. International Journal for Numerical Methods in Engineering, 2009, 79, 417-443.	2.8	25
22	Effect of axial load on the propagation of elastic waves in helical beams. Wave Motion, 2011, 48, 83-92.	2.0	25
23	Mechanical modeling of helical structures accounting for translational invariance. Part 2 : Guided wave propagation under axial loads. International Journal of Solids and Structures, 2013, 50, 1383-1393.	2.7	25
24	Modeling of thermophysical properties in heterogeneous periodic media according to a multi-scale approach: Effective conductivity tensor and edge effects. International Journal of Heat and Mass Transfer, 2013, 62, 586-603.	4.8	25
25	Transient heat conduction within periodic heterogeneous media: A space-time homogenization approach. International Journal of Thermal Sciences, 2015, 92, 217-229.	4.9	21
26	Phenomenological modeling of abradable wear in turbomachines. Mechanical Systems and Signal Processing, 2018, 98, 770-785.	8.0	19
27	Homogenization of helical beam-like structures: application to single-walled carbon nanotubes. Computational Mechanics, 2007, 41, 335-346.	4.0	15
28	Tensor-based methods for numerical homogenization from high-resolution images. Computer Methods in Applied Mechanics and Engineering, 2013, 254, 154-169.	6.6	14
29	A domain decomposition method for problems with structural heterogeneities on the interface: Application to a passenger ship. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3452-3463.	6.6	12
30	Methodology for modeling and service life monitoring of mooring lines of floating wind turbines. Ocean Engineering, 2019, 193, 106603.	4.3	11
31	DERIVATION OF THE YOUNG'S AND SHEAR MODULI OFSINGLE-WALLED CARBON NANOTUBES THROUGH A COMPUTATIONAL HOMOGENIZATION APPROACH. International Journal for Multiscale Computational Engineering, 2011, 9, 97-118.	1.2	11
32	Higher-order asymptotic model for a heterogeneous beam, including corrections due to end effects. , 2000, , .		10
33	Prediction of transient engine loads and damage due to hollow fan blade-off. Revue Europeenne Des Elements, 2002, 11, 651-666.	0.1	10
34	Study of Component Mode Synthesis Methods in a Rotor-Stator Interaction Case. , 2007, , 1235.		10
35	Numerical investigation on dynamic ultimate strength of stiffened panels considering real loading scenarios. Ships and Offshore Structures, 2019, 14, 374-386.	1.9	10
36	Solid and 3D beam finite element models for the nonlinear elastic analysis of helical strands within a computational homogenization framework. Computers and Structures, 2021, 257, 106675.	4.4	10

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37	A parametric study on the dynamic ultimate strength of a stiffened panel subjected to wave- and whipping-induced stresses. Ships and Offshore Structures, 2021, 16, 1025-1039.	1.9	9
38	n-dimensional Harmonic Balance Method extended to non-explicit nonlinearities. European Journal of Computational Mechanics, 2006, 15, 269-280.	0.6	8
39	Thermal properties of composite materials :effective conductivity tensor and edge effects. Journal of Physics: Conference Series, 2012, 395, 012014.	0.4	7
40	Dynamic ultimate strength of a ultra-large container ship subjected to realistic loading scenarios. Marine Structures, 2022, 84, 103197.	3.8	6
41	Elastic guided waves in helical multi-wire armors. Ultrasonics, 2021, 110, 106294.	3.9	5
42	Justification of the Asymptotic Expansion Method for Homogeneous Isotropic Beams by Comparison with De Saint-Venantâ€™s Solutions. Journal of Elasticity, 2017, 126, 245-270.	1.9	4
43	Investigation of the nonlinear slamming-induced whipping response of ships using a fully-coupled hydroelastoplastic method. Ocean Engineering, 2021, 238, 109751.	4.3	4
44	Assessment of 3D modeling for rotorâ€“stator contact simulations. Journal of Sound and Vibration, 2015, 353, 327-343.	3.9	3
45	A two-dimensional formulation for the homogenization of helical beam-like structures under bending loads. International Journal of Solids and Structures, 2022, 234-235, 111270.	2.7	3
46	A beam to 3D model switch in transient dynamic analysis. Finite Elements in Analysis and Design, 2014, 91, 95-107.	3.2	2
47	Abradable Coating Removal in Turbomachines: A Macroscopic Approach Accounting for Several Wear Mechanisms. , 2015, , .		2
48	Development of Beam-To-Beam Contact Detection Algorithms for Rotor-Stator Rubbing Applications. , 2007, , .		2
49	Evaluation of Component Mode Synthesis Methods for the Detection of Modal Interaction Through Rotor Stator Contacts. , 2009, , .		1
50	Recent advances in material homogenization. International Journal of Material Forming, 2010, 3, 899-902.	2.0	1
51	#xd;<mml:math altimg="si17.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x	5.3	1
52	Numerical modelling of the elastoplastic behaviour of a gasket material. Computational Materials Science, 1996, 5, 75-81.	3.0	0
53	Application de la mÃ©thode X-FEM Ã la rÃ©solution de problÃ¨mes de micromÃ©canique. Revue Europeenne Des Elements, 2004, 13, 475-484.	0.1	0
54	Experiments, numerical models and optimization of carbon-epoxy plates damped by a frequency-dependent interleaved viscoelastic layer. Mechanics of Advanced Materials and Structures, 0, , 1-19.	2.6	0

#	Article	IF	Citations
55	Dynamic Ultimate Strength of a Container Ship Under Sagging Condition. , 2020, , .		0