

Giovanni Garcea

List of Publications by Year in descending order

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72
papers

1,867
citations

186265
28
h-index

265206
42
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75
all docs

75
docs citations

75
times ranked

490
citing authors

#	ARTICLE	IF	CITATIONS
1	Asymptotic post-buckling FEM analysis using corotational formulation. International Journal of Solids and Structures, 2009, 46, 377-397.	2.7	91
2	Finite element shakedown analysis of two-dimensional structures. International Journal for Numerical Methods in Engineering, 2005, 63, 1174-1202.	2.8	82
3	Asymptotic post-buckling analysis of rectangular plates by HC finite elements. International Journal for Numerical Methods in Engineering, 1995, 38, 2325-2345.	2.8	71
4	Advantages of the mixed format in geometrically nonlinear analysis of beams and shells using solid finite elements. International Journal for Numerical Methods in Engineering, 2017, 109, 1237-1262.	2.8	67
5	Postbuckling optimisation of a variable angle tow composite wingbox using a multi-modal Koiter approach. Thin-Walled Structures, 2019, 138, 183-198.	5.3	66
6	Mixed formulation and locking in path-following nonlinear analysis. Computer Methods in Applied Mechanics and Engineering, 1998, 165, 247-272.	6.6	64
7	An efficient isogeometric solid-shell formulation for geometrically nonlinear analysis of elastic shells. Computer Methods in Applied Mechanics and Engineering, 2018, 331, 159-183.	6.6	62
8	A generalized model for heterogeneous and anisotropic beams including section distortions. Thin-Walled Structures, 2014, 74, 85-103.	5.3	61
9	KOITER'S ANALYSIS OF THIN-WALLED STRUCTURES BY A FINITE ELEMENT APPROACH. International Journal for Numerical Methods in Engineering, 1996, 39, 3007-3031.	2.8	57
10	PERTURBATION APPROACH TO ELASTIC POST-BUCKLING ANALYSIS. Computers and Structures, 1998, 66, 585-595.	4.4	57
11	How to improve efficiency and robustness of the Newton method in geometrically non-linear structural problem discretized via displacement-based finite elements. Computer Methods in Applied Mechanics and Engineering, 2017, 313, 986-1005.	6.6	56
12	An iterative method for shakedown analysis. Computer Methods in Applied Mechanics and Engineering, 2002, 191, 5761-5792.	6.6	53
13	A unified mathematical programming formulation of strain driven and interior point algorithms for shakedown and limit analysis. International Journal for Numerical Methods in Engineering, 2011, 88, 1085-1111.	2.8	53
14	A mixed beam model with non-uniform warpings derived from the Saint Venant rod. Computers and Structures, 2013, 121, 87-98.	4.4	52
15	The implicit corotational method and its use in the derivation of nonlinear structural models for beams and plates. Journal of Mechanics of Materials and Structures, 2012, 7, 509-538.	0.6	51
16	A simplified Kirchhoff-Love large deformation model for elastic shells and its effective isogeometric formulation. Computer Methods in Applied Mechanics and Engineering, 2019, 354, 369-396.	6.6	51
17	A geometrically exact beam model with non-uniform warping coherently derived from the Saint Venant rod. Engineering Structures, 2014, 68, 33-46.	5.3	47
18	Extrapolation locking and its sanitization in Koiter's asymptotic analysis. Computer Methods in Applied Mechanics and Engineering, 1999, 180, 137-167.	6.6	42

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19	Post-buckling optimisation strategy of imperfection sensitive composite shells using Koiter method and Monte Carlo simulation. <i>Composite Structures</i> , 2018, 192, 654-670.	5.8	42
20	Deformation modes of thin-walled members: A comparison between the method of Generalized Eigenvectors and Generalized Beam Theory. <i>Thin-Walled Structures</i> , 2016, 100, 192-212.	5.3	41
21	Nonlinear FEM analysis for beams and plate assemblages based on the implicit corotational method. <i>Journal of Mechanics of Materials and Structures</i> , 2012, 7, 539-574.	0.6	40
22	Accurate and efficient <i>a posteriori</i> account of geometrical imperfections in Koiter finite element analysis. <i>International Journal for Numerical Methods in Engineering</i> , 2017, 112, 1154-1174.	2.8	40
23	An efficient mixed variational reduced-order model formulation for nonlinear analyses of elastic shells. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 113, 634-655.	2.8	39
24	Path-following analysis of thin-walled structures and comparison with asymptotic post-critical solutions. <i>International Journal for Numerical Methods in Engineering</i> , 2002, 55, 73-100.	2.8	36
25	An isogeometric formulation of the Koiter's theory for buckling and initial post-buckling analysis of composite shells. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 337, 387-410.	6.6	36
26	A robust penalty coupling of non-matching isogeometric Kirchhoff-Love shell patches in large deformations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 371, 113289.	6.6	35
27	Mixed formulation in Koiter analysis of thin-walled beams. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2001, 190, 3369-3399.	6.6	33
28	Koiter asymptotic analysis of multilayered composite structures using mixed solid-shell finite elements. <i>Composite Structures</i> , 2016, 154, 296-308.	5.8	31
29	An isogeometric framework for the optimal design of variable stiffness shells undergoing large deformations. <i>International Journal of Solids and Structures</i> , 2021, 210-211, 18-34.	2.7	29
30	Buckling analysis through a generalized beam model including section distortions. <i>Thin-Walled Structures</i> , 2014, 85, 125-141.	5.3	27
31	A large rotation finite element analysis of 3D beams by incremental rotation vector and exact strain measure with all the desirable features. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 361, 112811.	6.6	27
32	A composite beam model including variable warping effects derived from a generalized Saint Venant solution. <i>Composite Structures</i> , 2014, 110, 140-151.	5.8	26
33	Three field finite elements for the elastoplastic analysis of 2D continua. <i>Finite Elements in Analysis and Design</i> , 2011, 47, 1119-1130.	3.2	25
34	An algorithm for incremental elastoplastic analysis using equality constrained sequential quadratic programming. <i>Computers and Structures</i> , 2012, 102-103, 97-107.	4.4	24
35	Evaluation of the capacity surfaces of reinforced concrete sections: Eurocode versus a plasticity-based approach. <i>Meccanica</i> , 2018, 53, 1493-1512.	2.0	24
36	Deformation modes for the post-critical analysis of thin-walled compressed members by a Koiter semi-analytic approach. <i>International Journal of Solids and Structures</i> , 2017, 110-111, 367-384.	2.7	20

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37	Effective treatment of complex statical and dynamical load combinations within shakedown analysis of 3D frames. <i>Computers and Structures</i> , 2015, 158, 124-139.	4.4	19
38	Isogeometric analysis of 3D beams for arbitrarily large rotations: Locking-free and path-independent solution without displacement DOFs inside the patch. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 373, 113437.	6.6	19
39	A composite mixed finite element model for the elasto-plastic analysis of 3D structural problems. <i>Finite Elements in Analysis and Design</i> , 2016, 113, 43-53.	3.2	18
40	A mixed edge-based smoothed finite element method (MES-FEM) for elasticity. <i>Computers and Structures</i> , 2016, 173, 123-138.	4.4	14
41	A numerical analysis of infinitesimal mechanisms. <i>International Journal for Numerical Methods in Engineering</i> , 2005, 62, 979-1012.	2.8	12
42	Sensitivity analysis to geometrical imperfections in shell buckling via a mixed generalized path-following method. <i>Thin-Walled Structures</i> , 2022, 170, 108643.	5.3	12
43	Minkowski plasticity in 3D frames: Decoupled construction of the cross-section yield surface and efficient stress update strategy. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 116, 435-464.	2.8	11
44	Fiber-based shakedown analysis of three-dimensional frames under multiple load combinations: Mixed finite elements and incremental iterative solution. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 3743-3767.	2.8	11
45	A Koiter reduction technique for the nonlinear thermoelastic analysis of shell structures prone to buckling. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 547-576.	2.8	11
46	A quasi-static nonlinear analysis for assessing the fire resistance of reinforced concrete 3D frames exploiting time-dependent yield surfaces. <i>Computers and Structures</i> , 2019, 212, 327-342.	4.4	10
47	Optimal Design of CNT-Nanocomposite Nonlinear Shells. <i>Nanomaterials</i> , 2020, 10, 2484.	4.1	10
48	Nonlinear thermoelastic analysis of shell structures: solid-shell modelling and high-performing continuation method. <i>Composite Structures</i> , 2021, 266, 113734.	5.8	9
49	Direct Evaluation of the Post-Buckling Behavior of Slender Structures Through a Numerical Asymptotic Formulation. , 2014, , 203-228.		9
50	A mixed node-based smoothed finite element method (MNS-FEM) for elasticity. <i>Engineering With Computers</i> , 2017, 33, 819-834.	6.1	7
51	Limit fire analysis of 3D frame structures. <i>Engineering Structures</i> , 2021, 233, 111762.	5.3	7
52	Unconditional stability in large deformation dynamic analysis of elastic structures with arbitrary nonlinear strain measure and multi-body coupling. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 393, 114776.	6.6	7
53	Material Design for Optimal Postbuckling Behaviour of Composite Shells. <i>Materials</i> , 2021, 14, 1665.	2.9	5
54	A two-level computational approach for the elasto-plastic analysis of framed structures with composite cross-sections. <i>Composite Structures</i> , 2019, 209, 192-205.	5.8	4

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55	A reduced order model for nonlinear time history seismic analyzes of elastoâ€plastic 3D frame structures. Earthquake Engineering and Structural Dynamics, 0, , .	4.4	4
56	Koiter Method and Solid Shell Finite Elements for Postbuckling Optimisation of Variable Angle Tow Composite Structures. Lecture Notes in Mechanical Engineering, 2020, , 1731-1742.	0.4	2
57	Increasing the buckling capacity with modal geometric â€imperfectionsâ€-designed by a reduced order model. Thin-Walled Structures, 2022, 178, 109529.	5.3	2
58	In memory of Professor Raffaele Casciaro. Meccanica, 2020, 55, 1847-1851.	2.0	1
59	An Efficient Algorithm for Shakedown Analysis Based on Equality Constrained Sequential Quadratic Programming. , 2015, , 177-197.		1
60	Shakedown Analysis of 3D Frames with an Effective Treatment of the Load Combinations. , 2015, , 253-277.		0
61	COMPOSITE FEM MODELS FOR LIMIT AND SHAKEDOWN ANALYSIS. , 2016, , .		0
62	MIXED SOLID MODELS IN NUMERICAL ANALYSIS OF SLENDER STRUCTURES. , 2016, , .		0
63	Composite Finite Elements in Structural Analysis. , 2018, , 105-128.		0
64	Large Rotation Finite Element Analysis of 3D Beams Based on Incremental Rotation Vector and Exact Strain Measures. Lecture Notes in Mechanical Engineering, 2020, , 1147-1158.	0.4	0
65	A Numerical Strategy for Multistable Nanocomposite Shells. , 2020, , 59-67.		0
66	A General Model for the Analysis of Beams Including Warping Effects. , 0, , .		0
67	A Nonlinear Model for the Analysis of Composite Beams including Warping Effects. , 0, , .		0
68	Efficient Shakedown Analysis of Reinforced Concrete Three-Dimensional Frames subject to a Large Number of Loads. , 0, , .		0
69	Shakedown Analysis of Three-Dimensional Frames subjected to Complex Static and Seismic Loads. , 0, , .		0
70	A Geometrical Exact Three-Dimensional Beam Model including the Effects of Section Distortions. , 0, , .		0
71	Mixed Finite Elements with Enhanced Plastic Behavior. , 0, , .		0
72	A Nonlinear Algorithm for the Analysis of Elastoplastic Structures Modelled with Mixed Finite Elements. , 0, , .		0