

Angela Madeo

List of Publications by Year in descending order

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82
papers

3,587
citations

109264

35
h-index

138417

58
g-index

83
all docs

83
docs citations

83
times ranked

1046
citing authors

#	ARTICLE	IF	CITATIONS
1	How contact interactions may depend on the shape of Cauchy cuts in Nth gradient continua: approach $\hat{\epsilon} \otimes \hat{\epsilon} \otimes \hat{\epsilon}$ la D $\hat{\epsilon}$ ™Alembert $\hat{\epsilon}$. Zeitschrift Fur Angewandte Mathematik Und Physik, 2012, 63, 1119-1141.	0.7	228
2	Analytical continuum mechanics $\langle i \rangle \hat{\epsilon}$ la $\langle i \rangle$ Hamilton $\hat{\epsilon}$ “Piola least action principle for second gradient continua and capillary fluids. Mathematics and Mechanics of Solids, 2015, 20, 375-417.	1.5	212
3	A unifying perspective: the relaxed linear micromorphic continuum. Continuum Mechanics and Thermodynamics, 2014, 26, 639-681.	1.4	202
4	The bias-extension test for the analysis of in-plane shear properties of textile composite reinforcements and prepregs: a review. International Journal of Material Forming, 2017, 10, 473-492.	0.9	152
5	Boundary conditions at fluid-permeable interfaces in porous media: A variational approach. International Journal of Solids and Structures, 2009, 46, 3150-3164.	1.3	137
6	Reflection and transmission of plane waves at surfaces carrying material properties and embedded in second-gradient materials. Mathematics and Mechanics of Solids, 2014, 19, 555-578.	1.5	124
7	Linear plane wave propagation and normal transmission and reflection at discontinuity surfaces in second gradient 3D continua. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2012, 92, 52-71.	0.9	122
8	Modeling the onset of shear boundary layers in fibrous composite reinforcements by second-gradient theory. Zeitschrift Fur Angewandte Mathematik Und Physik, 2014, 65, 587-612.	0.7	117
9	Wave propagation in relaxed micromorphic continua: modeling metamaterials with frequency band-gaps. Continuum Mechanics and Thermodynamics, 2015, 27, 551-570.	1.4	106
10	A continuum model for deformable, second gradient porous media partially saturated with compressible fluids. Journal of the Mechanics and Physics of Solids, 2013, 61, 2196-2211.	2.3	96
11	A second gradient continuum model accounting for some effects of micro-structure on reconstructed bone remodelling. Comptes Rendus - Mecanique, 2012, 340, 575-589.	2.1	94
12	A variational deduction of second gradient poroelasticity I: general theory. Journal of Mechanics of Materials and Structures, 2008, 3, 507-526.	0.4	78
13	A continuum model for the bio-mechanical interactions between living tissue and bio-resorbable graft after bone reconstructive surgery. Comptes Rendus - Mecanique, 2011, 339, 625-640.	2.1	71
14	Continuum and discrete models for structures including (quasi-) inextensible elasticae with a view to the design and modeling of composite reinforcements. International Journal of Solids and Structures, 2015, 59, 1-17.	1.3	70
15	The relaxed linear micromorphic continuum: Existence, uniqueness and continuous dependence in dynamics. Mathematics and Mechanics of Solids, 2015, 20, 1171-1197.	1.5	67
16	Modeling of the interaction between bone tissue and resorbable biomaterial as linear elastic materials with voids. Zeitschrift Fur Angewandte Mathematik Und Physik, 2015, 66, 209-237.	0.7	67
17	Cauchy Tetrahedron Argument Applied to Higher Contact Interactions. Archive for Rational Mechanics and Analysis, 2016, 219, 1305-1341.	1.1	66
18	A simple non-linear model for internal friction in modified concrete. International Journal of Engineering Science, 2014, 80, 136-152.	2.7	61

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19	Band gaps in the relaxed linear micromorphic continuum. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2015, 95, 880-887.	0.9	61
20	Reflection and transmission of elastic waves in non-local band-gap metamaterials: A comprehensive study via the relaxed micromorphic model. Journal of the Mechanics and Physics of Solids, 2016, 95, 441-479.	2.3	59
21	The relaxed linear micromorphic continuum: well-posedness of the static problem and relations to the gauge theory of dislocations. Quarterly Journal of Mechanics and Applied Mathematics, 2015, 68, 53-84.	0.5	56
22	Transparent anisotropy for the relaxed micromorphic model: Macroscopic consistency conditions and long wave length asymptotics. International Journal of Solids and Structures, 2017, 120, 7-30.	1.3	54
23	A variational deduction of second gradient poroelasticity II: an application to the consolidation problem. Journal of Mechanics of Materials and Structures, 2008, 3, 607-625.	0.4	49
24	Thick fibrous composite reinforcements behave as special second-gradient materials: three-point bending of 3D interlocks. Zeitschrift Fur Angewandte Mathematik Und Physik, 2015, 66, 2041-2060.	0.7	48
25	On some fundamental misunderstandings in the indeterminate couple stress model. A comment on recent papers of A.R. Hadjesfandiari and G.F. Dargush. International Journal of Solids and Structures, 2016, 81, 233-243.	1.3	48
26	Towards the Design of Metamaterials with Enhanced Damage Sensitivity: Second Gradient Porous Materials. Research in Nondestructive Evaluation, 2014, 25, 99-124.	0.5	46
27	Propagation of acoustic waves in porous media and their reflection and transmission at a pure-fluid/porous-medium permeable interface. European Journal of Mechanics, A/Solids, 2010, 29, 897-910.	2.1	40
28	First evidence of non-locality in real band-gap metamaterials: determining parameters in the relaxed micromorphic model. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160169.	1.0	39
29	The difficulties in modeling the mechanical behavior of textile composite reinforcements with standard continuum mechanics of Cauchy. Some possible remedies. International Journal of Solids and Structures, 2018, 154, 55-65.	1.3	39
30	Effective Description of Anisotropic Wave Dispersion in Mechanical Band-Gap Metamaterials via the Relaxed Micromorphic Model. Journal of Elasticity, 2020, 139, 299-329.	0.9	39
31	Identification of Scale-Independent Material Parameters in the Relaxed Micromorphic Model Through Model-Adapted First Order Homogenization. Journal of Elasticity, 2020, 139, 269-298.	0.9	38
32	Switch between fast and slow Biot compression waves induced by "second gradient microstructure" at material discontinuity surfaces in porous media. International Journal of Solids and Structures, 2013, 50, 1721-1746.	1.3	37
33	Towards the design of an enriched concrete with enhanced dissipation performances. Cement and Concrete Research, 2016, 84, 48-61.	4.6	37
34	The influence of different loads on the remodeling process of a bone and bioresorbable material mixture with voids. Continuum Mechanics and Thermodynamics, 2016, 28, 21-40.	1.4	37
35	Real wave propagation in the isotropic-relaxed micromorphic model. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160790.	1.0	36
36	On Grioli's minimum property and its relation to Cauchy's polar decomposition. International Journal of Engineering Science, 2014, 80, 209-217.	2.7	34

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37	Modelling the development of defects during composite reinforcements and prepreg forming. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150269.	1.6	33
38	A micro-structural model for dissipation phenomena in the concrete. International Journal for Numerical and Analytical Methods in Geomechanics, 2015, 39, 2037-2052.	1.7	31
39	Continuum and discrete models for unbalanced woven fabrics. International Journal of Solids and Structures, 2016, 94-95, 263-284.	1.3	31
40	The modified indeterminate couple stress model: Why Yang et al.'s arguments motivating a symmetric couple stress tensor contain a gap and why the couple stress tensor may be chosen symmetric nevertheless. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2017, 97, 1524-1554.	0.9	31
41	Bias extension test on an unbalanced woven composite reinforcement: Experiments and modeling via a second-gradient continuum approach. Journal of Composite Materials, 2017, 51, 153-170.	1.2	30
42	Minimization of Shear Energy in Two Dimensional Continua with Two Orthogonal Families of Inextensible Fibers: The Case of Standard Bias Extension Test. Journal of Elasticity, 2016, 122, 131-155.	0.9	29
43	Mechanically-driven bone remodeling simulation: Application to LIPUS treated rat calvarial defects. Mathematics and Mechanics of Solids, 2017, 22, 1976-1988.	1.5	29
44	A variant of the linear isotropic indeterminate couple-stress model with symmetric local force-stress, symmetric nonlocal force-stress, symmetric couple-stresses and orthogonal boundary conditions. Mathematics and Mechanics of Solids, 2017, 22, 1221-1266.	1.5	28
45	Modelling the deep drawing of a 3D woven fabric with a second gradient model. Mathematics and Mechanics of Solids, 2017, 22, 2165-2179.	1.5	28
46	Relaxed micromorphic model of transient wave propagation in anisotropic band-gap metastructures. International Journal of Solids and Structures, 2019, 162, 148-163.	1.3	27
47	A new view on boundary conditions in the Gurtin-Koiter-Mindlin-Toupin indeterminate couple stress model. European Journal of Mechanics, A/Solids, 2016, 59, 294-322.	2.1	26
48	Modeling Phononic Crystals via the Weighted Relaxed Micromorphic Model with Free and Gradient Micro-Inertia. Journal of Elasticity, 2018, 130, 59-83.	0.9	26
49	Complete band gaps including non-local effects occur only in the relaxed micromorphic model. Comptes Rendus - Mecanique, 2016, 344, 784-796.	2.1	25
50	Wave propagation in pantographic 2D lattices with internal discontinuities. Proceedings of the Estonian Academy of Sciences, 2015, 64, 325.	0.9	24
51	The effect of fluid streams in porous media on acoustic compression wave propagation, transmission, and reflection. Continuum Mechanics and Thermodynamics, 2013, 25, 173-196.	1.4	23
52	On the role of micro-inertia in enriched continuum mechanics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160722.	1.0	22
53	Frequency- and angle-dependent scattering of a finite-sized meta-structure via the relaxed micromorphic model. Archive of Applied Mechanics, 2020, 90, 1073-1096.	1.2	19
54	Analytical solutions of the simple shear problem for micromorphic models and other generalized continua. Archive of Applied Mechanics, 2021, 91, 2237-2254.	1.2	18

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55	Integration of material and process modelling in a business decision support system: Case of COMPOSELECTOR H2020 project. <i>Composite Structures</i> , 2018, 204, 778-790.	3.1	17
56	The Need to Use Generalized Continuum Mechanics to Model 3D Textile Composite Forming. <i>Applied Composite Materials</i> , 2018, 25, 761-771.	1.3	16
57	Analytical solutions of the cylindrical bending problem for the relaxed micromorphic continuum and other generalized continua. <i>Continuum Mechanics and Thermodynamics</i> , 2021, 33, 1505-1539.	1.4	16
58	Microstructure-related Stoneley waves and their effect on the scattering properties of a 2D Cauchy/relaxed-micromorphic interface. <i>Wave Motion</i> , 2019, 90, 99-120.	1.0	15
59	Exploring Metamaterials' Structures Through the Relaxed Micromorphic Model: Switching an Acoustic Screen Into an Acoustic Absorber. <i>Frontiers in Materials</i> , 2021, 7, .	1.2	15
60	Relaxed micromorphic modeling of the interface between a homogeneous solid and a band-gap metamaterial: New perspectives towards metastructural design. <i>Mathematics and Mechanics of Solids</i> , 2018, 23, 1485-1506.	1.5	14
61	Boundary and interface conditions in the relaxed micromorphic model: Exploring finite-size metastructures for elastic wave control. <i>Mathematics and Mechanics of Solids</i> , 2022, 27, 1053-1068.	1.5	14
62	Second-gradient models accounting for some effects of microstructure on remodelling of bones reconstructed with bioresorbable materials. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2013, 16, 260-261.	0.9	13
63	Beyond Euler-Cauchy Continua: The structure of contact actions in N-th gradient generalized continua: a generalization of the Cauchy tetrahedron argument. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2011, , 17-106.	0.3	12
64	Unfolding engineering metamaterials design: Relaxed micromorphic modeling of large-scale acoustic meta-structures. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, 168, 104995.	2.3	12
65	A panorama of dispersion curves for the weighted isotropic relaxed micromorphic model. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2017, 97, 1436-1481.	0.9	11
66	A Review on Wave Propagation Modeling in Band-Gap Metamaterials via Enriched Continuum Models. <i>Advanced Structured Materials</i> , 2017, , 89-105.	0.3	11
67	Metamaterial shields for inner protection and outer tuning through a relaxed micromorphic approach. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2022, 380, .	1.6	10
68	Analytical solution of the cylindrical torsion problem for the relaxed micromorphic continuum and other generalized continua (including full derivations). <i>Mathematics and Mechanics of Solids</i> , 2022, 27, 507-553.	1.5	9
69	Least Action Principle for Second Gradient Continua and Capillary Fluids: A Lagrangian Approach Following Piola's Point of View. <i>Advanced Structured Materials</i> , 2014, , 606-694.	0.3	9
70	Analytical solution of the uniaxial extension problem for the relaxed micromorphic continuum and other generalized continua (including full derivations). <i>Archive of Applied Mechanics</i> , 2023, 93, 5-21.	1.2	8
71	Towards the conception of complex engineering meta-structures: Relaxed-micromorphic modelling of low-frequency mechanical diodes/high-frequency screens. <i>Wave Motion</i> , 2022, 113, 102920.	1.0	6
72	Modeling and designing micro- and nano-structured metamaterials: Towards the application of exotic behaviors. <i>Mathematics and Mechanics of Solids</i> , 2017, 22, 873-884.	1.5	5

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73	Existence and uniqueness of Rayleigh waves in isotropic elastic Cosserat materials and algorithmic aspects. <i>Wave Motion</i> , 2022, 110, 102898.	1.0	5
74	The relaxed micromorphic continuum model. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2014, 14, 733-734.	0.2	4
75	Null-Lagrangians and the indeterminate couple stress model. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2016, 16, 379-380.	0.2	4
76	Model reduction for the forming process of fibrous composites structures via second gradient enriched continuum models. <i>Mechanics of Advanced Materials and Structures</i> , 2021, 28, 1061-1072.	1.5	4
77	Anisotropic wave dispersion and band-gaps in mechanical metamaterials via the relaxed micromorphic model. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018, 18, e201800413.	0.2	3
78	Dispersion of Waves in Micromorphic Media and Metamaterials. , 2019, , 713-739.		2
79	Simulations of 3D textile composite reinforcements. Specificities of the mechanical behavior. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	1
80	Dispersion of Waves in Micromorphic Media and Metamaterials. , 2017, , 1-27.		1
81	Instability and advanced models for coupled phenomena in geomechanics and applied sciences: a tribute to Félix Darve. <i>Continuum Mechanics and Thermodynamics</i> , 2015, 27, 3-4.	1.4	0
82	Bias Extension Test for In-Plane Shear Properties during Forming - Use at High Temperature and Limits of the Test. <i>Key Engineering Materials</i> , 2015, 651-653, 369-374.	0.4	0