Ada Amendola

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3622775/publications.pdf

Version: 2024-02-01

147 papers	6,359 citations	44069 48 h-index	74163 75 g-index
148 all docs	148 docs citations	148 times ranked	4454 citing authors

#	Article	IF	Citations
1	Recycling of plastic solid waste: A state of art review and future applications. Composites Part B: Engineering, 2017, 115, 409-422.	12.0	763
2	Experimental study of the thermo-mechanical properties of recycled PET fiber-reinforced concrete. Composite Structures, 2011, 93, 2368-2374.	5.8	218
3	Recycled nylon fibers as cement mortar reinforcement. Construction and Building Materials, 2015, 80, 200-209.	7.2	165
4	A thrust network approach to the equilibrium problem of unreinforced masonry vaults via polyhedral stress functions. Mechanics Research Communications, 2010, 37, 198-204.	1.8	137
5	Biomechanics of traumatic brain injury. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 4692-4701.	6.6	135
6	Multiscale tunability of solitary wave dynamics in tensegrity metamaterials. Applied Physics Letters, 2014, 105, .	3.3	128
7	On the reinforcement of cement mortars through 3D printed polymeric and metallic fibers. Composites Part B: Engineering, 2016, 90, 76-85.	12.0	123
8	Eigenfracture: An Eigendeformation Approach to Variational Fracture. Multiscale Modeling and Simulation, 2009, 7, 1237-1266.	1.6	122
9	Dimensional accuracy analysis of coupled fused deposition modeling and vapour smoothing operations for biomedical applications. Composites Part B: Engineering, 2017, 117, 138-149.	12.0	119
10	Multi-Material Additive Manufacturing of Sustainable Innovative Materials and Structures. Polymers, 2019, 11, 62.	4.5	118
11	Graphene as biomedical sensing element: State of art review and potential engineering applications. Composites Part B: Engineering, 2018, 134, 193-206.	12.0	113
12	Optimal Design of Composite Granular Protectors. Mechanics of Advanced Materials and Structures, 2009, 17, 1-19.	2.6	112
13	Friction welding of dissimilar plastic/polymer materials with metal powder reinforcement for engineering applications. Composites Part B: Engineering, 2016, 101, 77-86.	12.0	112
14	Solitary waves on tensegrity lattices. Journal of the Mechanics and Physics of Solids, 2012, 60, 1137-1144.	4.8	109
15	Investigation for surface finish improvement of FDM parts by vapor smoothing process. Composites Part B: Engineering, 2017, 111, 228-234.	12.0	105
16	Development of in-house composite wire based feed stock filaments of fused deposition modelling for wear-resistant materials and structures. Composites Part B: Engineering, 2016, 98, 244-249.	12.0	103
17	Effects of recycled PET fibres on the mechanical properties and seawater curing of Portland cement-based concretes. Construction and Building Materials, 2014, 61, 293-302.	7.2	98
18	Experimental response of additively manufactured metallic pentamode materials confined between stiffening plates. Composite Structures, 2016, 142, 254-262.	5.8	96

#	Article	IF	Citations
19	On the recyclability of polyamide for sustainable composite structures in civil engineering. Composite Structures, 2018, 184, 704-713.	5.8	95
20	On the mechanical modeling of the extreme softening/stiffening response of axially loaded tensegrity prisms. Journal of the Mechanics and Physics of Solids, 2015, 74, 136-157.	4.8	93
21	Experimental investigation of the softeningâ€“stiffening response of tensegrity prisms under compressive loading. Composite Structures, 2014, 117, 234-243.	5.8	89
22	Thermal characterization of recycled polymer for additive manufacturing applications. Composites Part B: Engineering, 2016, 106, 42-47.	12.0	86
23	On the use of R-PET strips for the reinforcement of cement mortars. Composites Part B: Engineering, 2013, 46, 207-210.	12.0	81
24	On the additive manufacturing, post-tensioning and testing of bi-material tensegrity structures. Composite Structures, 2015, 131, 66-71.	5.8	81
25	Minimum mass design of tensegrity bridges with parametric architecture and multiscale complexity. Mechanics Research Communications, 2014, 58, 124-132.	1.8	79
26	A lumped stress method for plane elastic problems and the discrete-continuum approximation. International Journal of Solids and Structures, 2002, 39, 6211-6240.	2.7	77
27	Friction welding for the manufacturing of PA6 and ABS structures reinforced with Fe particles. Composites Part B: Engineering, 2018, 132, 244-257.	12.0	75
28	A tensegrity approach to the optimal reinforcement of masonry domes and vaults through fiber-reinforced composite materials. Composite Structures, 2015, 134, 247-254.	5.8	74
29	Mechanical modeling of innovative metamaterials alternating pentamode lattices and confinement plates. Journal of the Mechanics and Physics of Solids, 2017, 99, 259-271.	4.8	72
30	Load carrying capacity of 2D FRP/strengthened masonry structures. Composites Part B: Engineering, 2005, 36, 619-626.	12.0	70
31	A variational constitutive model for soft biological tissues. Journal of Biomechanics, 2008, 41, 1458-1466.	2.1	70
32	Surface roughness effects on the reinforcement of cement mortars through 3D printed metallic fibers. Composites Part B: Engineering, 2016, 99, 305-311.	12.0	70
33	Multiscale mass-spring models of carbon nanotube foams. Journal of the Mechanics and Physics of Solids, 2011, 59, 89-102.	4.8	68
34	Computational assessment of ballistic impact on a high strength structural steel/polyurea composite plate. Computational Mechanics, 2009, 43, 525-534.	4.0	67
35	Bending dominated response of layered mechanical metamaterials alternating pentamode lattices and confinement plates. Composite Structures, 2016, 157, 71-77.	5.8	67
36	Waste management by recycling of polymers with reinforcement of metal powder. Composites Part B: Engineering, 2016, 105, 23-29.	12.0	65

#	Article	IF	Citations
37	Tuning frequency band gaps of tensegrity mass-spring chains with local and global prestress. International Journal of Solids and Structures, 2018, 155, 47-56.	2.7	65
38	Directional Wave Propagation in a Highly Nonlinear Square Packing of Spheres. Experimental Mechanics, 2013, 53, 327-337.	2.0	64
39	Investigations for mechanical properties of Hap, PVC and PP based 3D porous structures obtained through biocompatible FDM filaments. Composites Part B: Engineering, 2018, 132, 237-243.	12.0	62
40	Effect of single particle size, double particle size and triple particle size Al2O3 in Nylon-6 matrix on mechanical properties of feed stock filament for FDM. Composites Part B: Engineering, 2016, 106, 20-27.	12.0	61
41	On the additive manufacturing of an energy storage device from recycled material. Composites Part B: Engineering, 2019, 156, 259-265.	12.0	59
42	Accordion-like metamaterials with tunable ultra-wide low-frequency band gaps. New Journal of Physics, 2018, 20, 073051.	2.9	58
43	Universal formulae for the limiting elastic energy of membrane networks. Journal of the Mechanics and Physics of Solids, 2012, 60, 172-180.	4.8	57
44	On a moderate rotation theory of thin-walled composite beams. Composites Part B: Engineering, 2000, 31, 141-158.	12.0	54
45	On the wear properties of Nylon6-SiC-Al 2 O 3 based fused deposition modelling feed stock filament. Composites Part B: Engineering, 2017, 119, 125-131.	12.0	54
46	A penalty model for the analysis of curved composite beams. Computers and Structures, 1992, 45, 985-999.	4.4	52
47	Nonlinear elastic stress analysis in curved composite beams. Computers and Structures, 1997, 62, 837-859.	4.4	51
48	On the thrust surface of unreinforced and FRP-/FRCM-reinforced masonry domes. Composites Part B: Engineering, 2015, 83, 297-305.	12.0	51
49	A penalty model for the analysis of laminated composite shells. International Journal of Solids and Structures, 1993, 30, 3337-3355.	2.7	50
50	Modeling and in situ identification of material parameters for layered structures based on carbon nanotube arrays. Composite Structures, 2011, 93, 3013-3018.	5.8	50
51	Non-linear elastic response of layered structures, alternating pentamode lattices and confinement plates. Composites Part B: Engineering, 2017, 115, 117-123.	12.0	48
52	Free discontinuity finite element models in two-dimensions for in-plane crack problems. Theoretical and Applied Fracture Mechanics, 2007, 47, 274-282.	4.7	47
53	Optimal prestress design of composite cable-stayed bridges. Composite Structures, 2017, 169, 167-172.	5.8	44
54	Metal matrix composite from recycled materials by using additive manufacturing assisted investment casting. Composite Structures, 2019, 207, 129-135.	5.8	44

#	Article	IF	Citations
55	Buckling behavior of curved composite beams with different elastic response in tension and compression. Composite Structures, 2013, 100, 280-289.	5.8	43
56	High-Performance Nylon-6 Sustainable Filaments for Additive Manufacturing. Materials, 2019, 12, 3955.	2.9	41
57	Low velocity impact response of 3D printed structures formed by cellular metamaterials and stiffening plates: PLA vs. PETg. Composite Structures, 2021, 256, 113128.	5.8	41
58	Composite solar faÃ§ades and wind generators with tensegrity architecture. Composites Part B: Engineering, 2017, 115, 275-281.	12.0	40
59	On the Structural Shape Optimization through Variational Methods and Evolutionary Algorithms. Mechanics of Advanced Materials and Structures, 2011, 18, 225-243.	2.6	39
60	Highly nonlinear solitary wave propagation in Y-shaped granular crystals with variable branch angles. Physical Review E, 2012, 85, 036602.	2.1	39
61	Highly nonlinear pulse splitting and recombination in a two-dimensional granular network. Physical Review E, 2010, 82, 036603.	2.1	38
62	On the estimation of the curvatures and bending rigidity of membrane networks via a local maximum-entropy approach. Journal of Computational Physics, 2012, 231, 528-540.	3.8	38
63	On the use of tensegrity structures for kinetic solar facades of smart buildings. Smart Materials and Structures, 2015, 24, 105032.	3.5	36
64	Effect of prestress on phononic band gaps induced by inertial amplification. International Journal of Solids and Structures, 2021, 216, 156-166.	2.7	35
65	Minimum Mass and Optimal Complexity of Planar Tensegrity Bridges. International Journal of Space Structures, 2015, 30, 221-243.	1.0	32
66	Design, microstructure and mechanical characterization of Ti6Al4V reinforcing elements for cement composites with fractal architecture. Materials and Design, 2019, 172, 107758.	7.0	32
67	Continuum limits of bistable spring models of carbon nanotube arrays accounting for material damage. Mechanics Research Communications, 2012, 45, 58-63.	1.8	31
68	Limit analysis of masonry structures with free discontinuities. Meccanica, 2018, 53, 1793-1802.	2.0	29
69	Meta-tensegrity: Design of a tensegrity prism with metal rubber. Composite Structures, 2018, 206, 644-657.	5.8	27
70	A minimal mass deployable structure for solar energy harvesting on water canals. Structural and Multidisciplinary Optimization, 2017, 55, 449-458.	3.5	24
71	Incremental auxetic response of composite lattices under isotropic prestress. Composite Structures, 2018, 191, 145-153.	5.8	24
72	Rate-independent dissipation and loading direction effects in compressed carbon nanotube arrays. Nanotechnology, 2013, 24, 255707.	2.6	22

#	Article	IF	Citations
73	Tensegrity cell mechanical metamaterial with metal rubber. Applied Physics Letters, 2018, 113, .	3.3	22
74	Design and Testing of Bistable Lattices with Tensegrity Architecture and Nanoscale Features Fabricated by Multiphoton Lithography. Nanomaterials, 2020, 10, 652.	4.1	22
75	A mixed lumped stressâ€“displacement approach to the elastic problem of masonry walls. Mechanics Research Communications, 2011, 38, 176-180.	1.8	20
76	Experimental investigations for mechanical and metallurgical properties of friction stir welded recycled dissimilar polymer materials with metal powder reinforcement. Composites Part B: Engineering, 2016, 103, 90-97.	12.0	20
77	On the Geometrically Nonlinear Elastic Response of Class Î¸â€‰=â€‰1 Tensegrity Prisms. Frontiers in Materials, 2018, 5, .	2.4	20
78	Cohesive interface behaviour and local shear strains in axially loaded composite annular tubes. Composite Structures, 2017, 160, 1126-1135.	5.8	19
79	Numerical and Analytical Approaches to the Self-Equilibrium Problem of Class Î¸â€‰=â€‰1 Tensegrity Metamaterials. Frontiers in Materials, 2018, 5, .	2.4	19
80	On the Correspondence between 2D Force Networks and Polyhedral Stress Functions. International Journal of Space Structures, 2014, 29, 145-159.	1.0	18
81	On the minimal mass reinforcement of masonry structures with arbitrary shapes. Meccanica, 2017, 52, 1561-1576.	2.0	18
82	DEPENDENCE OF THE MECHANICAL PROPERTIES OF PENTAMODE MATERIALS ON THE LATTICE MICROSTRUCTURE. , 2016, , .		18
83	ON THE USE OF MECHANICAL METAMATERIALS FOR INNOVATIVE SEISMIC ISOLATIONS SYSTEMS. , 2015, , .		18
84	Mechanical modeling of superelastic tensegrity braces for earthquake-proof structures. Extreme Mechanics Letters, 2019, 33, 100578.	4.1	17
85	Multiscale Mass-Spring Model for High-Rate Compression of Vertically Aligned Carbon Nanotube Foams. Journal of Applied Mechanics, Transactions ASME, 2014, 81, .	2.2	15
86	A discrete-to-continuum approach to the curvatures of membrane networks and parametric surfaces. Mechanics Research Communications, 2014, 56, 18-25.	1.8	15
87	On the compact wave dynamics of tensegrity beams in multiple dimensions. Nonlinear Dynamics, 2019, 98, 2737-2753.	5.2	15
88	ON THE FORCED VIBRATION TEST BY VIBRODYNE. , 2015, , .		15
89	Special issue on composite lattices and multiscale innovative materials and structures. Composites Part B: Engineering, 2017, 115, 1-2.	12.0	14
90	Physical-mechanical characterization of biodegradable Mg-3Si-HA composites. PSU Research Review, 2018, 2, 152-174.	2.4	14

#	Article	IF	Citations
91	A biomimetic slidingâ€“stretching approach to seismic isolation. Nonlinear Dynamics, 2021, 106, 3147.	5.2	14
92	On the convergence of 3D free discontinuity models in variational fracture. International Journal of Fracture, 2010, 166, 3-11.	2.2	13
93	On the Kinematics and Actuation of Dynamic Sunscreens With Tensegrity Architecture. Frontiers in Materials, 2019, 6, .	2.4	13
94	A multiscale approach to the elastic moduli of biomembrane networks. Biomechanics and Modeling in Mechanobiology, 2012, 11, 1097-1108.	2.8	11
95	Asymptotic behavior in Form II Mindlinâ€™s strain gradient theory for porous thermoelastic diffusion materials. Journal of Thermal Stresses, 2020, 43, 191-209.	2.0	11
96	Meso-Scale Formulation of a Cracked-Hinge Model for Hybrid Fiber-Reinforced Cement Composites. Fibers, 2020, 8, 56.	4.0	11
97	Tensegrity Modelling and the High Toughness of Spider Dragline Silk. Nanomaterials, 2020, 10, 1510.	4.1	11
98	OPTIMAL DESIGN AND ADDITIVE MANUFACTURING OF NOVEL REINFORCING ELEMENTS FOR COMPOSITE MATERIALS. , 2016, , .		11
99	On the Mechanical Modeling of Tensegrity Columns Subject to Impact Loading. Frontiers in Materials, 2018, 5, .	2.4	10
100	Complementary energy variational approach for plane elastic problems with singularities. Theoretical and Applied Fracture Mechanics, 2001, 35, 129-135.	4.7	9
101	Discrete-to-continuum approaches to the mechanics of pentamode bearings. Composite Structures, 2017, 167, 219-226.	5.8	9
102	Uniqueness, continuous dependence, and spatial behavior of the solution in linear porous thermoelasticity with two relaxation times. Journal of Thermal Stresses, 2019, 42, 1582-1602.	2.0	7
103	Novel magnetic levitation systems for the vibration control of lightweight structures and artworks. Structural Control and Health Monitoring, 2022, 29, .	4.0	7
104	Modeling microscale instabilities in compressed carbon nanotube bundles using multistable spring models. Composite Structures, 2013, 96, 745-750.	5.8	6
105	Error Estimates for a Lumped Stress Method for Plane Elastic Problems. Mechanics of Advanced Materials and Structures, 2007, 14, 309-320.	2.6	5
106	Multiscale Mass-Spring Models of Carbon Nanotube Arrays Accounting for Mullins-like Behavior and Permanent Deformation. Multiscale Modeling and Simulation, 2013, 11, 545-565.	1.6	4
107	Experimental Investigations for Development of Hybrid Feed Stock Filament of Fused Deposition Modeling. , 2018, , .		4
108	On the Distribution in Height of Base Shear Forces in Linear Static Analysis of Base-Isolated Structures. Buildings, 2020, 10, 197.	3.1	4

#	Article	IF	Citations
109	ACCURATE NUMERICAL METHODS FOR STUDYING THE NONLINEAR WAVE-DYNAMICS OF TENSEGRITY METAMATERIALS. , 2017, , .		4
110	INNOVATIVE DEVICES FOR THE BASE ISOLATION OF EXISTING BUILDINGS. , 2017, , .		4
111	On the mechanics of tetrakis-like lattices in the stretch-dominated regime. Extreme Mechanics Letters, 2017, 15, 57-62.	4.1	3
112	Experimental and Numerical Study on the Lateral-Torsional Buckling of Steel C-Beams with Variable Cross-Section. Metals, 2018, 8, 941.	2.3	3
113	Investigations for Development of Feed Stock Filament of Fused Deposition Modeling From Recycled Polyamide. , 2018, , .		3
114	Mathematical analysis of a solution method for finite-strain holonomic plasticity of Cosserat materials. Meccanica, 2020, 55, 621-636.	2.0	3
115	Mechanical characterization of FDM filaments with PVDF matrix reinforced with Graphene and Barium Titanate. IOP Conference Series: Materials Science and Engineering, 2020, 999, 012010.	0.6	3
116	On the Free Vibrations of Non-Classically Damped Locally Resonant Metamaterial Plates. Nanomaterials, 2022, 12, 541.	4.1	3
117	Focalization of Heat Waves in an Inhomogeneous System. Journal of Non-Equilibrium Thermodynamics, 2019, 44, 303-313.	4.2	2
118	Effective stiffness properties of multi-layered pentamode lattices in the stretching-dominated regime. , 2019, , .		2
119	Mechanical and Experimental Study on the use of Sustainable Materials for Additive Manufacturing. IOP Conference Series: Materials Science and Engineering, 0, 473, 012010.	0.6	2
120	Tunable extremely wide low-frequency band gaps in accordion-like metamaterials. , 2018, , .		1
121	A Finite Element Analysis of the Stability of Composite Beams With Arbitrary Curvature. Frontiers in Built Environment, 2018, 4, .	2.3	1
122	On the mechanical response of multilayered pentamode lattices equipped with hinged and rigid nodes. PSU Research Review, 2018, 2, 138-144.	2.4	1
123	Generalized heat equation and transitions between different heat-transport regimes in narrow stripes. Mechanics Research Communications, 2019, 98, 22-30.	1.8	1
124	On a modified Beckerâ€“DÃ¶ring model for two-phase materials. Continuum Mechanics and Thermodynamics, 2020, 32, 901-912.	2.2	1
125	On the Optimal Prediction of the Stress Field Associated with Discrete Element Models. Journal of Optimization Theory and Applications, 2020, 187, 613-629.	1.5	1
126	Nonlinear acceleration wave propagation in the DKM theory. Mechanics Research Communications, 2020, 104, 103482.	1.8	1

#	Article	IF	Citations
127	PRESTRESS TUNING OF THE NONLINEAR DYNAMICS OF TENSEGRITY METAMATERIALS. , 2015, , .		1
128	EXPERIMENTAL AND NUMERICAL STUDY OF WAVE DYNAMICS IN TENSEGRITY COLUMNS. , 2017, , .		1
129	Thermomechanical and morphological properties of sustainable mortars employing blast furnace slag and fly ash reinforced cement. IOP Conference Series: Materials Science and Engineering, 0, 999, 012009.	0.6	1
130	Biomechanical features of bidirectional-barbed suture: a randomized laboratory analysis. Surgical Technology International, 2014, 24, 45-8.	0.2	1
131	On the design, elastic modeling and experimental characterization of novel tensegrity units. PSU Research Review, 2018, 2, 145-151.	2.4	0
132	Lateral-Torsional Buckling of C-Beams with Varying Inertia. IOP Conference Series: Materials Science and Engineering, 2019, 473, 012011.	0.6	0
133	Mechanical modeling of the bandgap response of tensegrity metamaterials. AIP Conference Proceedings, 2019, , .	0.4	0
134	Nonlinear wave dynamics of tensegrity metamaterials. , 2019, , .		0
135	On the equilibrium problem and infinitesimal mechanisms of class theta tensegrity systems. , 2019, , .		0
136	Novel Actuators and Sensors with Tensegrity Architecture. Key Engineering Materials, 0, 826, 105-110.	0.4	0
137	Green Design of Novel Metal Matrix Composites. IOP Conference Series: Materials Science and Engineering, 2019, 473, 012008.	0.6	0
138	Staging and Pretensioning of Cable-Stayed Bridges. IOP Conference Series: Materials Science and Engineering, 2019, 473, 012012.	0.6	0
139	Graphene Reinforced Composites as Sensing Elements. Key Engineering Materials, 2019, 826, 33-44.	0.4	0
140	Some properties of solutions in linear theory for semi-strongly elliptic porous elastic materials. Meccanica, 2020, 55, 103-112.	2.0	0
141	2D LATTICE STRUCTURES - A PARAMETRIC ANALYSIS. , 2017, , .		0
142	ON THE DESIGN OF PERFORMANCE-BASED PENTAMODE BEARINGS. , 2017, , .		0
143	Mathematical Modeling of Surface Roughness in the Forming of Innovative Materials. IOP Conference Series: Materials Science and Engineering, 0, 473, 012009.	0.6	0
144	On the fabrication and mechanical modelling microscale bistable tensegrity systems. IOP Conference Series: Materials Science and Engineering, 0, 999, 012002.	0.6	0

#	Article	IF	Citations
145	A simple remark about the Love hypothesis in rod dynamics. Applications in Engineering Science, 2021, 8, 100076.	0.8	0
146	Multiscale Innovative Materials and Structures (MIMS). Nanomaterials, 2022, 12, 96.	4.1	0
147	On shear motions in nonlinear transverse isotropic elastodynamics. Mathematics and Mechanics of Solids, 0, , 108128652211054.	2.4	0