

# Ada Amendola

## List of Publications by Year in descending order

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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	On the Free Vibrations of Non-Classically Damped Locally Resonant Metamaterial Plates. <i>Nanomaterials</i> , 2022, 12, 541.	4.1	3
2	Novel magnetic levitation systems for the vibration control of lightweight structures and artworks. <i>Structural Control and Health Monitoring</i> , 2022, 29, .	4.0	7
3	Multiscale Innovative Materials and Structures (MIMS). <i>Nanomaterials</i> , 2022, 12, 96.	4.1	0
4	Low velocity impact response of 3D printed structures formed by cellular metamaterials and stiffening plates: PLA vs. PETg. <i>Composite Structures</i> , 2021, 256, 113128.	5.8	41
5	Effect of prestress on phononic band gaps induced by inertial amplification. <i>International Journal of Solids and Structures</i> , 2021, 216, 156-166.	2.7	35
6	A biomimetic sliding stretching approach to seismic isolation. <i>Nonlinear Dynamics</i> , 2021, 106, 3147.	5.2	14
7	A simple remark about the Love hypothesis in rod dynamics. <i>Applications in Engineering Science</i> , 2021, 8, 100076.	0.8	0
8	Mathematical analysis of a solution method for finite-strain holonomic plasticity of Cosserat materials. <i>Meccanica</i> , 2020, 55, 621-636.	2.0	3
9	On a modified Becker's ring model for two-phase materials. <i>Continuum Mechanics and Thermodynamics</i> , 2020, 32, 901-912.	2.2	1
10	On the Optimal Prediction of the Stress Field Associated with Discrete Element Models. <i>Journal of Optimization Theory and Applications</i> , 2020, 187, 613-629.	1.5	1
11	Asymptotic behavior in Form II Mindlin's strain gradient theory for porous thermoelastic diffusion materials. <i>Journal of Thermal Stresses</i> , 2020, 43, 191-209.	2.0	11
12	Some properties of solutions in linear theory for semi-strongly elliptic porous elastic materials. <i>Meccanica</i> , 2020, 55, 103-112.	2.0	0
13	Meso-Scale Formulation of a Cracked-Hinge Model for Hybrid Fiber-Reinforced Cement Composites. <i>Fibers</i> , 2020, 8, 56.	4.0	11
14	On the Distribution in Height of Base Shear Forces in Linear Static Analysis of Base-Isolated Structures. <i>Buildings</i> , 2020, 10, 197.	3.1	4
15	Tensegrity Modelling and the High Toughness of Spider Dragline Silk. <i>Nanomaterials</i> , 2020, 10, 1510.	4.1	11
16	Nonlinear acceleration wave propagation in the DKM theory. <i>Mechanics Research Communications</i> , 2020, 104, 103482.	1.8	1
17	Design and Testing of Bistable Lattices with Tensegrity Architecture and Nanoscale Features Fabricated by Multiphoton Lithography. <i>Nanomaterials</i> , 2020, 10, 652.	4.1	22
18	Mechanical characterization of FDM filaments with PVDF matrix reinforced with Graphene and Barium Titanate. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 999, 012010.	0.6	3

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19	On the additive manufacturing of an energy storage device from recycled material. Composites Part B: Engineering, 2019, 156, 259-265.	12.0	59
20	Lateral-Torsional Buckling of C-Beams with Varying Inertia. IOP Conference Series: Materials Science and Engineering, 2019, 473, 012011.	0.6	0
21	Mechanical modeling of the bandgap response of tensegrity metamaterials. AIP Conference Proceedings, 2019, , .	0.4	0
22	Nonlinear wave dynamics of tensegrity metamaterials. , 2019, , .		0
23	On the equilibrium problem and infinitesimal mechanisms of class theta tensegrity systems. , 2019, , .		0
24	Focalization of Heat Waves in an Inhomogeneous System. Journal of Non-Equilibrium Thermodynamics, 2019, 44, 303-313.	4.2	2
25	Effective stiffness properties of multi-layered pentamode lattices in the stretching-dominated regime. , 2019, , .		2
26	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
27	Mechanical modeling of superelastic tensegrity braces for earthquake-proof structures. Extreme Mechanics Letters, 2019, 33, 100578.	4.1	17
28	On the compact wave dynamics of tensegrity beams in multiple dimensions. Nonlinear Dynamics, 2019, 98, 2737-2753.	5.2	15
29	Generalized heat equation and transitions between different heat-transport regimes in narrow stripes. Mechanics Research Communications, 2019, 98, 22-30.	1.8	1
30	Green Design of Novel Metal Matrix Composites. IOP Conference Series: Materials Science and Engineering, 2019, 473, 012008.	0.6	0
31	Staging and Pretensioning of Cable-Stayed Bridges. IOP Conference Series: Materials Science and Engineering, 2019, 473, 012012.	0.6	0
32	Design, microstructure and mechanical characterization of Ti6Al4V reinforcing elements for cement composites with fractal architecture. Materials and Design, 2019, 172, 107758.	7.0	32
33	Graphene Reinforced Composites as Sensing Elements. Key Engineering Materials, 2019, 826, 33-44.	0.4	0
34	High-Performance Nylon-6 Sustainable Filaments for Additive Manufacturing. Materials, 2019, 12, 3955.	2.9	41
35	Metal matrix composite from recycled materials by using additive manufacturing assisted investment casting. Composite Structures, 2019, 207, 129-135.	5.8	44
36	Multi-Material Additive Manufacturing of Sustainable Innovative Materials and Structures. Polymers, 2019, 11, 62.	4.5	118

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37	On the Kinematics and Actuation of Dynamic Sunscreens With Tensegrity Architecture. <i>Frontiers in Materials</i> , 2019, 6, .	2.4	13
38	Incremental auxetic response of composite lattices under isotropic prestress. <i>Composite Structures</i> , 2018, 191, 145-153.	5.8	24
39	Limit analysis of masonry structures with free discontinuities. <i>Meccanica</i> , 2018, 53, 1793-1802.	2.0	29
40	On the recyclability of polyamide for sustainable composite structures in civil engineering. <i>Composite Structures</i> , 2018, 184, 704-713.	5.8	95
41	Graphene as biomedical sensing element: State of art review and potential engineering applications. <i>Composites Part B: Engineering</i> , 2018, 134, 193-206.	12.0	113
42	Friction welding for the manufacturing of PA6 and ABS structures reinforced with Fe particles. <i>Composites Part B: Engineering</i> , 2018, 132, 244-257.	12.0	75
43	Investigations for mechanical properties of Hap, PVC and PP based 3D porous structures obtained through biocompatible FDM filaments. <i>Composites Part B: Engineering</i> , 2018, 132, 237-243.	12.0	62
44	Physical-mechanical characterization of biodegradable Mg-3Si-HA composites. <i>PSU Research Review</i> , 2018, 2, 152-174.	2.4	14
45	Experimental and Numerical Study on the Lateral-Torsional Buckling of Steel C-Beams with Variable Cross-Section. <i>Metals</i> , 2018, 8, 941.	2.3	3
46	Tunable extremely wide low-frequency band gaps in accordion-like metamaterials. , 2018, , .		1
47	A Finite Element Analysis of the Stability of Composite Beams With Arbitrary Curvature. <i>Frontiers in Built Environment</i> , 2018, 4, .	2.3	1
48	On the design, elastic modeling and experimental characterization of novel tensegrity units. <i>PSU Research Review</i> , 2018, 2, 145-151.	2.4	0
49	On the mechanical response of multilayered pentamode lattices equipped with hinged and rigid nodes. <i>PSU Research Review</i> , 2018, 2, 138-144.	2.4	1
50	Meta-tensegrity: Design of a tensegrity prism with metal rubber. <i>Composite Structures</i> , 2018, 206, 644-657.	5.8	27
51	Investigations for Development of Feed Stock Filament of Fused Deposition Modeling From Recycled Polyamide. , 2018, , .		3
52	Tensegrity cell mechanical metamaterial with metal rubber. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	22
53	Numerical and Analytical Approaches to the Self-Equilibrium Problem of Class $\hat{\lambda} = 1$ Tensegrity Metamaterials. <i>Frontiers in Materials</i> , 2018, 5, .	2.4	19
54	On the Geometrically Nonlinear Elastic Response of Class $\hat{\lambda} = 1$ Tensegrity Prisms. <i>Frontiers in Materials</i> , 2018, 5, .	2.4	20

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55	On the Mechanical Modeling of Tensegrity Columns Subject to Impact Loading. <i>Frontiers in Materials</i> , 2018, 5, .	2.4	10
56	Accordion-like metamaterials with tunable ultra-wide low-frequency band gaps. <i>New Journal of Physics</i> , 2018, 20, 073051.	2.9	58
57	Tuning frequency band gaps of tensegrity mass-spring chains with local and global prestress. <i>International Journal of Solids and Structures</i> , 2018, 155, 47-56.	2.7	65
58	Experimental Investigations for Development of Hybrid Feed Stock Filament of Fused Deposition Modeling. , 2018, , .		4
59	A minimal mass deployable structure for solar energy harvesting on water canals. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 449-458.	3.5	24
60	Mechanical modeling of innovative metamaterials alternating pentamode lattices and confinement plates. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 99, 259-271.	4.8	72
61	Cohesive interface behaviour and local shear strains in axially loaded composite annular tubes. <i>Composite Structures</i> , 2017, 160, 1126-1135.	5.8	19
62	Discrete-to-continuum approaches to the mechanics of pentamode bearings. <i>Composite Structures</i> , 2017, 167, 219-226.	5.8	9
63	Dimensional accuracy analysis of coupled fused deposition modeling and vapour smoothing operations for biomedical applications. <i>Composites Part B: Engineering</i> , 2017, 117, 138-149.	12.0	119
64	Investigation for surface finish improvement of FDM parts by vapor smoothing process. <i>Composites Part B: Engineering</i> , 2017, 111, 228-234.	12.0	105
65	On the mechanics of tetrakis-like lattices in the stretch-dominated regime. <i>Extreme Mechanics Letters</i> , 2017, 15, 57-62.	4.1	3
66	On the wear properties of Nylon6-SiC-Al <sub>2</sub> O <sub>3</sub> based fused deposition modelling feed stock filament. <i>Composites Part B: Engineering</i> , 2017, 119, 125-131.	12.0	54
67	Special issue on composite lattices and multiscale innovative materials and structures. <i>Composites Part B: Engineering</i> , 2017, 115, 1-2.	12.0	14
68	Non-linear elastic response of layered structures, alternating pentamode lattices and confinement plates. <i>Composites Part B: Engineering</i> , 2017, 115, 117-123.	12.0	48
69	Optimal prestress design of composite cable-stayed bridges. <i>Composite Structures</i> , 2017, 169, 167-172.	5.8	44
70	Composite solar façades and wind generators with tensegrity architecture. <i>Composites Part B: Engineering</i> , 2017, 115, 275-281.	12.0	40
71	On the minimal mass reinforcement of masonry structures with arbitrary shapes. <i>Meccanica</i> , 2017, 52, 1561-1576.	2.0	18
72	Recycling of plastic solid waste: A state of art review and future applications. <i>Composites Part B: Engineering</i> , 2017, 115, 409-422.	12.0	763

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73	ACCURATE NUMERICAL METHODS FOR STUDYING THE NONLINEAR WAVE-DYNAMICS OF TENSEGRITY METAMATERIALS. , 2017, , .		4
74	INNOVATIVE DEVICES FOR THE BASE ISOLATION OF EXISTING BUILDINGS. , 2017, , .		4
75	EXPERIMENTAL AND NUMERICAL STUDY OF WAVE DYNAMICS IN TENSEGRITY COLUMNS. , 2017, , .		1
76	2D LATTICE STRUCTURES - A PARAMETRIC ANALYSIS. , 2017, , .		0
77	ON THE DESIGN OF PERFORMANCE-BASED PENTAMODE BEARINGS. , 2017, , .		0
78	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
79	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
80	Effect of single particle size, double particle size and triple particle size Al <sub>2</sub> O <sub>3</sub> in Nylon-6 matrix on mechanical properties of feed stock filament for FDM. Composites Part B: Engineering, 2016, 106, 20-27.	12.0	61
81	Thermal characterization of recycled polymer for additive manufacturing applications. Composites Part B: Engineering, 2016, 106, 42-47.	12.0	86
82	Bending dominated response of layered mechanical metamaterials alternating pentamode lattices and confinement plates. Composite Structures, 2016, 157, 71-77.	5.8	67
83	Waste management by recycling of polymers with reinforcement of metal powder. Composites Part B: Engineering, 2016, 105, 23-29.	12.0	65
84	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
85	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
86	On the reinforcement of cement mortars through 3D printed polymeric and metallic fibers. Composites Part B: Engineering, 2016, 90, 76-85.	12.0	123
87	Experimental response of additively manufactured metallic pentamode materials confined between stiffening plates. Composite Structures, 2016, 142, 254-262.	5.8	96
88	OPTIMAL DESIGN AND ADDITIVE MANUFACTURING OF NOVEL REINFORCING ELEMENTS FOR COMPOSITE MATERIALS. , 2016, , .		11
89	DEPENDENCE OF THE MECHANICAL PROPERTIES OF PENTAMODE MATERIALS ON THE LATTICE MICROSTRUCTURE. , 2016, , .		18
90	Minimum Mass and Optimal Complexity of Planar Tensegrity Bridges. International Journal of Space Structures, 2015, 30, 221-243.	1.0	32

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91	On the use of tensegrity structures for kinetic solar facades of smart buildings. Smart Materials and Structures, 2015, 24, 105032.	3.5	36
92	Recycled nylon fibers as cement mortar reinforcement. Construction and Building Materials, 2015, 80, 200-209.	7.2	165
93	On the additive manufacturing, post-tensioning and testing of bi-material tensegrity structures. Composite Structures, 2015, 131, 66-71.	5.8	81
94	On the thrust surface of unreinforced and FRP-/FRCM-reinforced masonry domes. Composites Part B: Engineering, 2015, 83, 297-305.	12.0	51
95	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
96	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
97	ON THE FORCED VIBRATION TEST BY VIBRODYNE. , 2015, , .		15
98	ON THE USE OF MECHANICAL METAMATERIALS FOR INNOVATIVE SEISMIC ISOLATIONS SYSTEMS. , 2015, , .		18
99	PRESTRESS TUNING OF THE NONLINEAR DYNAMICS OF TENSEGRITY METAMATERIALS. , 2015, , .		1
100	Multiscale tunability of solitary wave dynamics in tensegrity metamaterials. Applied Physics Letters, 2014, 105, .	3.3	128
101	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
102	Experimental investigation of the softening&quot;stiffening response of tensegrity prisms under compressive loading. Composite Structures, 2014, 117, 234-243.	5.8	89
103	On the Correspondence between 2D Force Networks and Polyhedral Stress Functions. International Journal of Space Structures, 2014, 29, 145-159.	1.0	18
104	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
105	A discrete-to-continuum approach to the curvatures of membrane networks and parametric surfaces. Mechanics Research Communications, 2014, 56, 18-25.	1.8	15
106	Minimum mass design of tensegrity bridges with parametric architecture and multiscale complexity. Mechanics Research Communications, 2014, 58, 124-132.	1.8	79
107	Biomechanical features of bidirectional-barbed suture: a randomized laboratory analysis. Surgical Technology International, 2014, 24, 45-8.	0.2	1
108	Directional Wave Propagation in a Highly Nonlinear Square Packing of Spheres. Experimental Mechanics, 2013, 53, 327-337.	2.0	64

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109	Buckling behavior of curved composite beams with different elastic response in tension and compression. <i>Composite Structures</i> , 2013, 100, 280-289.	5.8	43
110	Rate-independent dissipation and loading direction effects in compressed carbon nanotube arrays. <i>Nanotechnology</i> , 2013, 24, 255707.	2.6	22
111	On the use of R-PET strips for the reinforcement of cement mortars. <i>Composites Part B: Engineering</i> , 2013, 46, 207-210.	12.0	81
112	Modeling microscale instabilities in compressed carbon nanotube bundles using multistable spring models. <i>Composite Structures</i> , 2013, 96, 745-750.	5.8	6
113	Multiscale Mass-Spring Models of Carbon Nanotube Arrays Accounting for Mullins-like Behavior and Permanent Deformation. <i>Multiscale Modeling and Simulation</i> , 2013, 11, 545-565.	1.6	4
114	Highly nonlinear solitary wave propagation in Y-shaped granular crystals with variable branch angles. <i>Physical Review E</i> , 2012, 85, 036602.	2.1	39
115	A multiscale approach to the elastic moduli of biomembrane networks. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012, 11, 1097-1108.	2.8	11
116	Continuum limits of bistable spring models of carbon nanotube arrays accounting for material damage. <i>Mechanics Research Communications</i> , 2012, 45, 58-63.	1.8	31
117	On the estimation of the curvatures and bending rigidity of membrane networks via a local maximum-entropy approach. <i>Journal of Computational Physics</i> , 2012, 231, 528-540.	3.8	38
118	Universal formulae for the limiting elastic energy of membrane networks. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 172-180.	4.8	57
119	Solitary waves on tensegrity lattices. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 1137-1144.	4.8	109
120	Experimental study of the thermo-mechanical properties of recycled PET fiber-reinforced concrete. <i>Composite Structures</i> , 2011, 93, 2368-2374.	5.8	218
121	Modeling and in situ identification of material parameters for layered structures based on carbon nanotube arrays. <i>Composite Structures</i> , 2011, 93, 3013-3018.	5.8	50
122	Multiscale mass-spring models of carbon nanotube foams. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 89-102.	4.8	68
123	A mixed lumped stress-displacement approach to the elastic problem of masonry walls. <i>Mechanics Research Communications</i> , 2011, 38, 176-180.	1.8	20
124	On the Structural Shape Optimization through Variational Methods and Evolutionary Algorithms. <i>Mechanics of Advanced Materials and Structures</i> , 2011, 18, 225-243.	2.6	39
125	A thrust network approach to the equilibrium problem of unreinforced masonry vaults via polyhedral stress functions. <i>Mechanics Research Communications</i> , 2010, 37, 198-204.	1.8	137
126	On the convergence of 3D free discontinuity models in variational fracture. <i>International Journal of Fracture</i> , 2010, 166, 3-11.	2.2	13



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127	Highly nonlinear pulse splitting and recombination in a two-dimensional granular network. <i>Physical Review E</i> , 2010, 82, 036603.	2.1	38
128	Eigenfracture: An Eigendeformation Approach to Variational Fracture. <i>Multiscale Modeling and Simulation</i> , 2009, 7, 1237-1266.	1.6	122
129	Optimal Design of Composite Granular Protectors. <i>Mechanics of Advanced Materials and Structures</i> , 2009, 17, 1-19.	2.6	112
130	Computational assessment of ballistic impact on a high strength structural steel/polyurea composite plate. <i>Computational Mechanics</i> , 2009, 43, 525-534.	4.0	67
131	A variational constitutive model for soft biological tissues. <i>Journal of Biomechanics</i> , 2008, 41, 1458-1466.	2.1	70
132	Biomechanics of traumatic brain injury. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 4692-4701.	6.6	135
133	Error Estimates for a Lumped Stress Method for Plane Elastic Problems. <i>Mechanics of Advanced Materials and Structures</i> , 2007, 14, 309-320.	2.6	5
134	Free discontinuity finite element models in two-dimensions for in-plane crack problems. <i>Theoretical and Applied Fracture Mechanics</i> , 2007, 47, 274-282.	4.7	47
135	Load carrying capacity of 2D FRP/strengthened masonry structures. <i>Composites Part B: Engineering</i> , 2005, 36, 619-626.	12.0	70
136	A lumped stress method for plane elastic problems and the discrete-continuum approximation. <i>International Journal of Solids and Structures</i> , 2002, 39, 6211-6240.	2.7	77
137	Complementary energy variational approach for plane elastic problems with singularities. <i>Theoretical and Applied Fracture Mechanics</i> , 2001, 35, 129-135.	4.7	9
138	On a moderate rotation theory of thin-walled composite beams. <i>Composites Part B: Engineering</i> , 2000, 31, 141-158.	12.0	54
139	Nonlinear elastic stress analysis in curved composite beams. <i>Computers and Structures</i> , 1997, 62, 837-859.	4.4	51
140	A penalty model for the analysis of laminated composite shells. <i>International Journal of Solids and Structures</i> , 1993, 30, 3337-3355.	2.7	50
141	A penalty model for the analysis of curved composite beams. <i>Computers and Structures</i> , 1992, 45, 985-999.	4.4	52
142	Novel Actuators and Sensors with Tensegrity Architecture. <i>Key Engineering Materials</i> , 0, 826, 105-110.	0.4	0
143	Mechanical and Experimental Study on the use of Sustainable Materials for Additive Manufacturing. <i>IOP Conference Series: Materials Science and Engineering</i> , 0, 473, 012010.	0.6	2
144	Mathematical Modeling of Surface Roughness in the Forming of Innovative Materials. <i>IOP Conference Series: Materials Science and Engineering</i> , 0, 473, 012009.	0.6	0

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145	On the fabrication and mechanical modelling microscale bistable tensegrity systems. IOP Conference Series: Materials Science and Engineering, 0, 999, 012002.	0.6	0
146	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
147	On shear motions in nonlinear transverse isotropic elastodynamics. Mathematics and Mechanics of Solids, 0, , 108128652211054.	2.4	0