Raffaele Barretta

List of Publications by Year
in descending order

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103 papers	5,643 citations	50244 46 h-index	82499 72 g-index
105 all docs	105 docs citations	105 times ranked	1226 citing authors

#	Article	IF	Citations
1	Constitutive boundary conditions and paradoxes in nonlocal elastic nanobeams. International Journal of Mechanical Sciences, 2017, 121, 151-156.	3.6	403
2	Nonlocal elasticity in nanobeams: the stress-driven integral model. International Journal of Engineering Science, 2017, 115, 14-27.	2.7	308
3	Stress-driven versus strain-driven nonlocal integral model for elastic nano-beams. Composites Part B: Engineering, 2017, 114, 184-188.	5.9	248
4	Free vibrations of Bernoulli-Euler nano-beams by the stress-driven nonlocal integral model. Composites Part B: Engineering, 2017, 123, 105-111.	5.9	202
5	Functionally graded Timoshenko nanobeams: A novel nonlocal gradient formulation. Composites Part B: Engineering, 2016, 100, 208-219.	5.9	192
6	Constitutive boundary conditions for nonlocal strain gradient elastic nano-beams. International Journal of Engineering Science, 2018, 130, 187-198.	2.7	136
7	On nonlocal integral models for elastic nano-beams. International Journal of Mechanical Sciences, 2017, 131-132, 490-499.	3.6	135
8	Free vibrations of elastic beams by modified nonlocal strain gradient theory. International Journal of Engineering Science, 2018, 133, 99-108.	2.7	122
9	Stress-driven modeling of nonlocal thermoelastic behavior of nanobeams. International Journal of Engineering Science, 2018, 126, 53-67.	2.7	121
10	Longitudinal vibrations of nano-rods by stress-driven integral elasticity. Mechanics of Advanced Materials and Structures, 2019, 26, 1307-1315.	1.5	103
11	Application of an enhanced version of the Eringen differential model to nanotechnology. Composites Part B: Engineering, 2016, 96, 274-280.	5.9	98
12	Exact solutions of inflected functionally graded nano-beams in integral elasticity. Composites Part B: Engineering, 2018, 142, 273-286.	5.9	97
13	Comment on the paper â€œExact solution of Eringenâ€™s nonlocal integral model for bending of Eulerâ€“Bernoulli and Timoshenko beamsâ€•by Meral Tuna & Mesut Kirca. International Journal of Engineering Science, 2016, 109, 240-242.	2.7	95
14	Stress-driven nonlocal integral model for Timoshenko elastic nano-beams. European Journal of Mechanics, A/Solids, 2018, 72, 275-286.	2.1	94
15	Closed-form solutions in stress-driven two-phase integral elasticity for bending of functionally graded nano-beams. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 97, 13-30.	1.3	93
16	Stress-driven nonlocal integral elasticity for axisymmetric nano-plates. International Journal of Engineering Science, 2019, 136, 38-52.	2.7	93
17	Torsion of functionally graded nonlocal viscoelastic circular nanobeams. Composites Part B: Engineering, 2015, 72, 217-222.	5.9	86
18	Free vibrations of FG elastic Timoshenko nano-beams by strain gradient and stress-driven nonlocal models. Composites Part B: Engineering, 2018, 154, 20-32.	5.9	85

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19	Variational nonlocal gradient elasticity for nano-beams. International Journal of Engineering Science, 2019, 143, 73-91.	2.7	84
20	A closed-form model for torsion of nanobeams with an enhanced nonlocal formulation. Composites Part B: Engineering, 2017, 108, 315-324.	5.9	83
21	Buckling loads of nano-beams in stress-driven nonlocal elasticity. Mechanics of Advanced Materials and Structures, 2020, 27, 869-875.	1.5	83
22	Stress-driven integral elastic theory for torsion of nano-beams. Mechanics Research Communications, 2018, 87, 35-41.	1.0	82
23	Variational formulations for functionally graded nonlocal Bernoulliâ€“Euler nanobeams. Composite Structures, 2015, 129, 80-89.	3.1	79
24	Nonlocal integral elasticity in nanostructures, mixtures, boundary effects and limit behaviours. Continuum Mechanics and Thermodynamics, 2018, 30, 641-655.	1.4	75
25	A stress-driven local-nonlocal mixture model for Timoshenko nano-beams. Composites Part B: Engineering, 2019, 164, 590-598.	5.9	75
26	Nonlocal inflected nano-beams: A stress-driven approach of bi-Helmholtz type. Composite Structures, 2018, 200, 239-245.	3.1	71
27	Experimental evaluations and modeling of the tensile behavior of polypropylene/single-walled carbon nanotubes fibers. Composite Structures, 2017, 174, 12-18.	3.1	70
28	Application of gradient elasticity to armchair carbon nanotubes: Size effects and constitutive parameters assessment. European Journal of Mechanics, A/Solids, 2017, 65, 1-13.	2.1	68
29	Nonlocal strain gradient exact solutions for functionally graded inflected nano-beams. Composites Part B: Engineering, 2019, 164, 667-674.	5.9	68
30	A gradient Eringen model for functionally graded nanorods. Composite Structures, 2015, 131, 1124-1131.	3.1	67
31	Stress-driven two-phase integral elasticity for torsion of nano-beams. Composites Part B: Engineering, 2018, 145, 62-69.	5.9	65
32	Some analytical solutions of functionally graded Kirchhoff plates. Composites Part B: Engineering, 2015, 68, 266-269.	5.9	63
33	Flexural properties of multi-wall carbon nanotube/polypropylene composites: Experimental investigation and nonlocal modeling. Composite Structures, 2015, 131, 282-289.	3.1	62
34	Analogies between Kirchhoff plates and functionally graded Saint-Venant beams under torsion. Continuum Mechanics and Thermodynamics, 2015, 27, 499-505.	1.4	62
35	An Eringen-like model for Timoshenko nanobeams. Composite Structures, 2016, 139, 104-110.	3.1	62
36	Variationally consistent dynamics of nonlocal gradient elastic beams. International Journal of Engineering Science, 2020, 149, 103220.	2.7	62

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37	Exact solutions of isotropic viscoelastic functionally graded Kirchhoff plates. Composite Structures, 2014, 118, 448-454.	3.1	61
38	On torsion of random composite beams. Composite Structures, 2015, 132, 915-922.	3.1	58
39	On torsion and shear of Saint-Venant beams. European Journal of Mechanics, A/Solids, 2012, 35, 47-60.	2.1	57
40	Some closed-form solutions of functionally graded beams undergoing nonuniform torsion. Composite Structures, 2015, 123, 132-136.	3.1	54
41	Analogies between nonlocal and local Bernoulliâ€“Euler nanobeams. Archive of Applied Mechanics, 2015, 85, 89-99.	1.2	53
42	On functionally graded Timoshenko nonisothermal nanobeams. Composite Structures, 2016, 135, 286-296.	3.1	53
43	On nonlocal mechanics of curved elastic beams. International Journal of Engineering Science, 2019, 144, 103140.	2.7	53
44	A new nonlocal bending model for Eulerâ€“Bernoulli nanobeams. Mechanics Research Communications, 2014, 62, 25-30.	1.0	51
45	A Fully Gradient Model for Euler-Bernoulli Nanobeams. Mathematical Problems in Engineering, 2015, 2015, 1-8.	0.6	51
46	A gradient elasticity model of Bernoulliâ€“Euler nanobeams in non-isothermal environments. European Journal of Mechanics, A/Solids, 2016, 55, 243-255.	2.1	51
47	Nonlocal strain gradient torsion of elastic beams: variational formulation and constitutive boundary conditions. Archive of Applied Mechanics, 2020, 90, 691-706.	1.2	47
48	A Nonlocal Model for Carbon Nanotubes under Axial Loads. Advances in Materials Science and Engineering, 2013, 2013, 1-6.	1.0	46
49	A higher-order Eringen model for Bernoulliâ€“Euler nanobeams. Archive of Applied Mechanics, 2016, 86, 483-495.	1.2	46
50	Timoshenko nonlocal strain gradient nanobeams: Variational consistency, exact solutions and carbon nanotube Young moduli. Mechanics of Advanced Materials and Structures, 2021, 28, 1523-1536.	1.5	46
51	On the relative position of twist and shear centres in the orthotropic and fiberwise homogeneous Saintâ€“Venant beam theory. International Journal of Solids and Structures, 2012, 49, 3038-3046.	1.3	43
52	Small-scale effects in nanorods. Acta Mechanica, 2014, 225, 1945-1953.	1.1	43
53	Micromorphic continua: non-redundant formulations. Continuum Mechanics and Thermodynamics, 2016, 28, 1659-1670.	1.4	42
54	Analogies between Kirchhoff plates and Saint-Venant beams under torsion. Acta Mechanica, 2013, 224, 2955-2964.	1.1	39

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55	Modified Nonlocal Strain Gradient Elasticity for Nano-Rods and Application to Carbon Nanotubes. Applied Sciences (Switzerland), 2019, 9, 514.	1.3	39
56	Aifantis versus Lam strain gradient models of Bishop elastic rods. Acta Mechanica, 2019, 230, 2799-2812.	1.1	38
57	On CesÃro-Volterra Method in Orthotropic Saint-Venant Beam. Journal of Elasticity, 2013, 112, 233-253.	0.9	37
58	A gradient model for Timoshenko nanobeams. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 62, 1-9.	1.3	37
59	Analogies between Kirchhoff plates and Saint-Venant beams under flexure. Acta Mechanica, 2014, 225, 2075-2083.	1.1	36
60	Variational Formulation of the First Principle of Continuum Thermodynamics. Continuum Mechanics and Thermodynamics, 2010, 22, 177-187.	1.4	30
61	On the dynamics of nano-frames. International Journal of Engineering Science, 2021, 160, 103433.	2.7	30
62	On torsion of nonlocal Lam strain gradient FG elastic beams. Composite Structures, 2020, 233, 111550.	3.1	29
63	Finite element method for stress-driven nonlocal beams. Engineering Analysis With Boundary Elements, 2022, 134, 22-34.	2.0	28
64	Nonlocal integral thermoelasticity: A thermodynamic framework for functionally graded beams. Composite Structures, 2019, 225, 111104.	3.1	27
65	Random vibrations of stress-driven nonlocal beams with external damping. Meccanica, 2021, 56, 1329-1344.	1.2	26
66	Geometric continuum mechanics. Meccanica, 2014, 49, 111-133.	1.2	25
67	On thermomechanics of multilayered beams. International Journal of Engineering Science, 2020, 155, 103364.	2.7	25
68	Algorithmic tangent stiffness in elastoplasticity and elastoviscoplasticity: A geometric insight. Mechanics Research Communications, 2010, 37, 289-292.	1.0	18
69	A consistent variational formulation of Bishop nonlocal rods. Continuum Mechanics and Thermodynamics, 2020, 32, 1311-1323.	1.4	18
70	On the regularity of curvature fields in stress-driven nonlocal elastic beams. Acta Mechanica, 2021, 232, 2595-2603.	1.1	18
71	Geometric constitutive theory and frame invariance. International Journal of Non-Linear Mechanics, 2013, 51, 75-86.	1.4	17
72	The geometry of nonlinear elasticity. Acta Mechanica, 2014, 225, 3199-3235.	1.1	17

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73	On Maupertuis principle in dynamics. Reports on Mathematical Physics, 2009, 63, 331-346.	0.4	16
74	Covariant hypo-elasticity. European Journal of Mechanics, A/Solids, 2011, 30, 1012-1023.	2.1	16
75	Iterative methods for nonlocal elasticity problems. Continuum Mechanics and Thermodynamics, 2019, 31, 669-689.	1.4	16
76	Limit behaviour of Eringenâ€™s two-phase elastic beams. European Journal of Mechanics, A/Solids, 2021, 89, 104315.	2.1	16
77	Shear stresses in elastic beams: an intrinsic approach. European Journal of Mechanics, A/Solids, 2010, 29, 400-409.	2.1	15
78	On Eulerâ€™s stretching formula in continuum mechanics. Acta Mechanica, 2013, 224, 211-230.	1.1	15
79	Elastostatics of Bernoulliâ€“Euler Beams Resting on Displacement-Driven Nonlocal Foundation. Nanomaterials, 2021, 11, 573.	1.9	15
80	Analytical Solutions of Viscoelastic Nonlocal Timoshenko Beams. Mathematics, 2022, 10, 477.	1.1	13
81	A gradient model for torsion of nanobeams. Comptes Rendus - Mecanique, 2015, 343, 289-300.	2.1	12
82	Nonlinear shell theory: a duality approach. Journal of Mechanics of Materials and Structures, 2007, 2, 1207-1230.	0.4	11
83	On stress function in Saint-Venant beams. Meccanica, 2013, 48, 1811-1816.	1.2	11
84	Dynamics of Stress-Driven Two-Phase Elastic Beams. Nanomaterials, 2021, 11, 1138.	1.9	11
85	Nano-beams under torsion: a stress-driven nonlocal approach. PSU Research Review, 2017, 1, 164-169.	1.3	10
86	On the nonlocal bending problem with fractional hereditariness. Meccanica, 2022, 57, 807-820.	1.2	10
87	On continuum dynamics. Journal of Mathematical Physics, 2009, 50, 102903.	0.5	9
88	On the general form of the law of dynamics. International Journal of Non-Linear Mechanics, 2009, 44, 689-695.	1.4	9
89	On the shear centre in Saint-Venant beam theory. Mechanics Research Communications, 2013, 52, 52-56.	1.0	8
90	Rate formulations in nonlinear continuum mechanics. Acta Mechanica, 2014, 225, 1625-1648.	1.1	7

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91	A geometric rationale for invariance, covariance and constitutive relations. Continuum Mechanics and Thermodynamics, 2018, 30, 175-194.	1.4	7
92	Nonlocal Mechanical Behavior of Layered Nanobeams. Symmetry, 2020, 12, 717.	1.1	7
93	Dynamic behavior of nanobeams under axial loads: Integral elasticity modeling and sizeâ€dependent eigenfrequencies assessment. Mathematical Methods in the Applied Sciences, 0, , .	1.2	5
94	On the theory of material inhomogeneities. Mechanics Research Communications, 2006, 33, 758-763.	1.0	4
95	Stress-driven two-phase integral elasticity for Timoshenko curved beams. Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems, 2021, 235, 52-63.	0.5	4
96	Elasticity problems of beams on reaction-driven nonlocal foundation. Archive of Applied Mechanics, 0, , .	1.2	4
97	Nonlocal integral elasticity for third-order small-scale beams. Acta Mechanica, 2022, 233, 2393-2403.	1.1	4
98	Solidâ€“fluid interaction: a continuum mechanics assessment. Acta Mechanica, 2017, 228, 851-869.	1.1	2
99	On the role of control windows in continuum dynamics. Acta Mechanica, 2018, 229, 1849-1868.	1.1	2
100	Modulated Linear Dynamics of Functionally Graded Nanobeams With Nonlocal and Gradient Elasticity. , 2018, , 293-323.		2
101	Encyclopediaâ€”Open Access MDPI Journal. Encyclopedia, 2021, 1, 3-3.	2.4	0
102	Stress-Driven Approach for Stochastic Analysis of Noisy Nonlocal Beam. Lecture Notes in Mechanical Engineering, 2020, , 1670-1686.	0.3	0
103	Multiscale Innovative Materials and Structures (MIMS). Nanomaterials, 2022, 12, 96.	1.9	0