Lorenzo Bardella

List of Publications by Year
in descending order

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49	1,270	361296	360920
papers	citations	20	35
		h-index	g-index

51	51	51	611
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the elastic behavior of syntactic foams. International Journal of Solids and Structures, 2001, 38, 7235-7260.	1.3	197
2	Modelling the torsion of thin metal wires by distortion gradient plasticity. Journal of the Mechanics and Physics of Solids, 2015, 78, 467-492.	2.3	88
3	A deformation theory of strain gradient crystal plasticity that accounts for geometrically necessary dislocations. Journal of the Mechanics and Physics of Solids, 2006, 54, 128-160.	2.3	84
4	Elastic design of syntactic foamed sandwiches obtained by filling of three-dimensional sandwich-fabric panels. International Journal of Solids and Structures, 2001, 38, 307-333.	1.3	69
5	A critical evaluation of micromechanical models for syntactic foams. Mechanics of Materials, 2012, 50, 53-69.	1.7	65
6	Size effects in phenomenological strain gradient plasticity constitutively involving the plastic spin. International Journal of Engineering Science, 2010, 48, 550-568.	2.7	61
7	A finite element framework for distortion gradient plasticity with applications to bending of thin foils. International Journal of Solids and Structures, 2016, 96, 288-299.	1.3	44
8	Some remarks on the strain gradient crystal plasticity modelling, with particular reference to the material length scales involved. International Journal of Plasticity, 2007, 23, 296-322.	4.1	43
9	A micromechanical model for quasi-brittle compressive failure of glass-microballoons/thermoset-matrix syntactic foams. Journal of the European Ceramic Society, 2014, 34, 2605-2616.	2.8	40
10	Influence of material parameters and crystallography on the size effects describable by means of strain gradient plasticity. Journal of the Mechanics and Physics of Solids, 2008, 56, 2906-2934.	2.3	37
11	On the Finite Element implementation of higher-order gradient plasticity, with focus on theories based on plastic distortion incompatibility. Computer Methods in Applied Mechanics and Engineering, 2016, 310, 840-865.	3.4	36
12	Modeling actuation and sensing in ionic polymer metal composites by electrochemo-poromechanics. Journal of the Mechanics and Physics of Solids, 2021, 148, 104292.	2.3	35
13	An alternative explanation of back-relaxation in ionic polymer metal composites. Extreme Mechanics Letters, 2017, 13, 78-83.	2.0	34
14	Three-dimensional elastic solutions for functionally graded circular plates. European Journal of Mechanics, A/Solids, 2011, 30, 219-235.	2.1	33
15	A comparison between crystal and isotropic strain gradient plasticity theories with accent on the role of the plastic spin. European Journal of Mechanics, A/Solids, 2009, 28, 638-646.	2.1	32
16	Latent hardening size effect in small-scale plasticity. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 055009.	0.8	28
17	A phenomenological constitutive law for the nonlinear viscoelastic behaviour of epoxy resins in the glassy state. European Journal of Mechanics, A/Solids, 2001, 20, 907-924.	2.1	26
18	On the compressive strength of glass microballoons-based syntactic foams. Mechanics of Materials, 2015, 82, 63-77.	1.7	26

#	Article	IF	Citations
19	Modelling compression sensing in ionic polymer metal composites. Smart Materials and Structures, 2017, 26, 035030.	1.8	24
20	On the role of higher-order conditions in distortion gradient plasticity. Journal of the Mechanics and Physics of Solids, 2018, 118, 293-321.	2.3	24
21	An extension of the Secant Method for the homogenization of the nonlinear behavior of composite materials. International Journal of Engineering Science, 2003, 41, 741-768.	2.7	21
22	A micromechanical model to study failure of polymer-glass syntactic foams at high strain rates. Computational Materials Science, 2017, 135, 189-204.	1.4	19
23	A critical evaluation of mechanical models for sandwich beams. Journal of Sandwich Structures and Materials, 2012, 14, 629-654.	2.0	16
24	A structural model for plane sandwich beams including transverse core deformability and arbitrary boundary conditions. European Journal of Mechanics, A/Solids, 2016, 58, 172-186.	2.1	16
25	Reliability of first-order shear deformation models for sandwich beams. Journal of Mechanics of Materials and Structures, 2008, 3, 1187-1206.	0.4	15
26	Influence of shear on sensing of ionic polymer metal composites. European Journal of Mechanics, A/Solids, 2019, 77, 103750.	2.1	14
27	On the coupling of mechanics with bioelectricity and its role in morphogenesis. Journal of the Royal Society Interface, 2020, 17, 20200177.	1.5	14
28	On Structural Theories for Ionic Polymer Metal Composites: Balancing Between Accuracy and Simplicity. Journal of Elasticity, 2020, 141, 227-272.	0.9	14
29	Explicit Analytic Solutions for the Accurate Evaluation of the Shear Stresses in Sandwich Beams. Journal of Engineering Mechanics - ASCE, 2012, 138, 502-507.	1.6	11
30	Structural theory and finite element modelling of linear elastic sandwich beams subject to severe boundary conditions. European Journal of Mechanics, A/Solids, 2017, 61, 393-407.	2.1	11
31	Two features of the uniaxial compression of a glassy epoxy resin: the yield stress rate-dependence andÂtheÂvolumetric instability. Mechanics of Time-Dependent Materials, 2011, 15, 255-275.	2.3	10
32	Failure of glass-microballoons/thermoset-matrix syntactic foams subject to hydrostatic loading. European Journal of Mechanics, A/Solids, 2018, 70, 58-74.	2.1	10
33	Asymptotic analysis of compression sensing in ionic polymer metal composites: The role of interphase regions with variable properties. Mathematics in Engineering, 2021, 3, 1-31.	0.5	10
34	Time integration errors and some new functionals for the dynamics of a free mass. Computers and Structures, 2003, 81, 2361-2372.	2.4	9
35	Modelling the cyclic torsion of polycrystalline micron-sized copper wires by distortion gradient plasticity. Philosophical Magazine, 2020, 100, 2352-2364.	0.7	9
36	Newmarkâ€™s Time Integration Method From the Discretization of Extended Functionals. Journal of Applied Mechanics, Transactions ASME, 2005, 72, 527.	1.1	8

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37	Accurate modelling of the linear elastic flexure of composite beams warped by midlayer slip, with emphasis on concrete-timber systems. International Journal of Mechanical Sciences, 2014, 87, 268-280.	3.6	8
38	On explicit analytic solutions for the accurate evaluation of the shear stress in sandwich beams with a clamped end. Composite Structures, 2014, 112, 157-168.	3.1	8
39	A potential for higher-order phenomenological strain gradient plasticity to predict reliable response under non-proportional loading. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190258.	1.0	7
40	A note on the solution of the electro-elastic boundary-value problem for rank-two laminates at finite strains. Meccanica, 2019, 54, 1971-1982.	1.2	4
41	On the Effect of the Volumetric Deformation in Soft Dielectric Composites with High Phase Contrast. Journal of Elasticity, 2022, 148, 167-198.	0.9	3
42	Strain Gradient Plasticity. , 2020, , 2330-2341.		2
43	Special issue on â€œRecent Advances on the Mechanics of Materialsâ€• Meccanica, 2018, 53, 509-510.	1.2	1
44	On a mixed energeticâ€“dissipative constitutive law for non-proportional loading, with focus on small-scale plasticity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, .	1.0	1
45	Strain Gradient Plasticity. , 2018, , 1-13.		1
46	Strain Gradient Plasticity: Theory and Implementation. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2020, , 101-149.	0.3	1
47	Title is missing!. Journal of Materials Science Letters, 2003, 22, 1643-1646.	0.5	0
48	A theoretical framework for the study of compression sensing in ionic polymer metal composites. Proceedings of SPIE, 2017, , .	0.8	0
49	On structural models for ionic polymer metal composites (SPIE Best Student Paper Finalist). , 2020, , .		0