

# Francesco dell'Isola

## List of Publications by Year in descending order

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225  
papers

12,048  
citations

16411

64  
h-index

32761

100  
g-index

233  
all docs

233  
docs citations

233  
times ranked

2053  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Truss Modular Beams with Deformation Energy Depending on Higher Displacement Gradients. <i>Mathematics and Mechanics of Solids</i> , 2003, 8, 51-73.   | 1.5 | 433       |
| 2  | At the origins and in the vanguard of peridynamics, non-local and higher-gradient continuum mechanics: An underestimated and still topical contribution of Gabrio Piola. <i>Mathematics and Mechanics of Solids</i> , 2015, 20, 887-928.                                 | 1.5 | 362       |
| 3  | Pantographic metamaterials: an example of mathematically driven design and of its technological challenges. <i>Continuum Mechanics and Thermodynamics</i> , 2019, 31, 851-884.   | 1.4 | 272       |
| 4  | Large deformations of planar extensible beams and pantographic lattices: heuristic homogenization, experimental and numerical examples of equilibrium. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016, 472, 20150790. | 1.0 | 262       |
| 5  | How contact interactions may depend on the shape of Cauchy cuts in Nth gradient continua: approach à la D'Alembert. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2012, 63, 1119-1141.   | 0.7 | 228       |
| 6  | Analytical continuum mechanics à la Hamilton–Piola least action principle for second gradient continua and capillary fluids. <i>Mathematics and Mechanics of Solids</i> , 2015, 20, 375-417.   | 1.5 | 212       |
| 7  | Advances in pantographic structures: design, manufacturing, models, experiments and image analyses. <i>Continuum Mechanics and Thermodynamics</i> , 2019, 31, 1231-1282.   | 1.4 | 212       |
| 8  | B-Spline interpolation of Kirchhoff-Love space rods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 256, 251-269.  | 3.4 | 211       |
| 9  | Generalized Hooke's law for isotropic second gradient materials. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2009, 465, 2177-2196.  | 1.0 | 194       |
| 10 | Homogenization à la Piola produces second gradient continuum models for linear pantographic lattices. <i>International Journal of Engineering Science</i> , 2015, 97, 148-172.   | 2.7 | 191       |
| 11 | Hencky-type discrete model for pantographic structures: numerical comparison with second gradient continuum models. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2016, 67, 1.   | 0.7 | 188       |
| 12 | Higher-gradient continua: The legacy of Piola, Mindlin, Sedov and Toupin and some future research perspectives. <i>Mathematics and Mechanics of Solids</i> , 2017, 22, 852-872.  | 1.5 | 188       |
| 13 | Geometrically nonlinear higher-gradient elasticity with energetic boundaries. <i>Journal of the Mechanics and Physics of Solids</i> , 2013, 61, 2381-2401.   | 2.3 | 179       |
| 14 | A Two-Dimensional Gradient-Elasticity Theory for Woven Fabrics. <i>Journal of Elasticity</i> , 2015, 118, 113-125.   | 0.9 | 166       |
| 15 | Linear pantographic sheets: Asymptotic micro-macro models identification. <i>Mathematics and Mechanics of Complex Systems</i> , 2017, 5, 127-162.  | 0.5 | 161       |
| 16 | An implicit multi patch B-spline interpolation for Kirchhoff–Love space rod. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 269, 173-197.  | 3.4 | 158       |
| 17 | Designing a light fabric metamaterial being highly macroscopically tough under directional extension: first experimental evidence. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2015, 66, 3473-3498.  | 0.7 | 157       |
| 18 | Edge Contact Forces and Quasi-Balanced Power. <i>Meccanica</i> , 1997, 32, 33-52.  | 1.2 | 156       |

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|----|---|-----|-----------|
| 19 | The bias-extension test for the analysis of in-plane shear properties of textile composite reinforcements and prepregs: a review. <i>International Journal of Material Forming</i> , 2017, 10, 473-492.                                 | 0.9 | 152       |
| 20 | Linear elastic trusses leading to continua with exotic mechanical interactions. <i>Journal of Physics: Conference Series</i> , 2011, 319, 012018.   | 0.3 | 147       |
| 21 | Mechanical response of fabric sheets to three-dimensional bending, twisting, and stretching. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2015, 31, 373-382.   | 1.5 | 138       |
| 22 | Boundary conditions at fluid-permeable interfaces in porous media: A variational approach. <i>International Journal of Solids and Structures</i> , 2009, 46, 3150-3164.   | 1.3 | 137       |
| 23 | Second gradient poromechanics. <i>International Journal of Solids and Structures</i> , 2007, 44, 6607-6629.   | 1.3 | 131       |
| 24 | Theory and computation of higher gradient elasticity theories based on action principles. <i>Archive of Applied Mechanics</i> , 2017, 87, 1495-1510.  | 1.2 | 127       |
| 25 | Macroscopic Description of Microscopically Strongly Inhomogeneous Systems: A Mathematical Basis for the Synthesis of Higher Gradients Metamaterials. <i>Archive for Rational Mechanics and Analysis</i> , 2015, 218, 1239-1262.         | 1.1 | 126       |
| 26 | Qualitative pivot damage analysis in aluminum printed pantographic sheets: Numerics and experiments. <i>Mechanics Research Communications</i> , 2017, 83, 47-52.  | 1.0 | 125       |
| 27 | Linear plane wave propagation and normal transmission and reflection at discontinuity surfaces in second gradient 3D continua. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2012, 92, 52-71.                        | 0.9 | 122       |
| 28 | Modeling the onset of shear boundary layers in fibrous composite reinforcements by second-gradient theory. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2014, 65, 587-612.   | 0.7 | 117       |
| 29 | Piezoelectric Passive Distributed Controllers for Beam Flexural Vibrations. <i>JVC/Journal of Vibration and Control</i> , 2004, 10, 625-659.  | 1.5 | 116       |
| 30 | A mixture model with evolving mass densities for describing synthesis and resorption phenomena in bones reconstructed with bioresorbable materials. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2012, 92, 426-444. | 0.9 | 115       |
| 31 | Linear Pantographic Sheets: Existence and Uniqueness of Weak Solutions. <i>Journal of Elasticity</i> , 2018, 132, 175-196.  | 0.9 | 115       |
| 32 | Numerical simulations of classical problems in two-dimensional (non) linear second gradient elasticity. <i>International Journal of Engineering Science</i> , 2016, 108, 34-50.   | 2.7 | 112       |
| 33 | An isogeometric implicit mixed finite element for Kirchhoff space rods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 308, 325-349.  | 1.1 | 112       |
| 34 | Passive damping of beam vibrations through distributed electric networks and piezoelectric transducers: prototype design and experimental validation. <i>Smart Materials and Structures</i> , 2004, 13, 299-308.                        | 1.8 | 110       |
| 35 | Comparison of piezoelectronic networks acting as distributed vibration absorbers. <i>Mechanical Systems and Signal Processing</i> , 2004, 18, 1243-1271.  | 4.4 | 109       |
| 36 | On the derivation of thermomechanical balance equations for continuous systems with a nonmaterial interface. <i>International Journal of Engineering Science</i> , 1987, 25, 1459-1468.   | 2.7 | 102       |

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|----|--|-----|-----------|
| 37 | The postulations of the Cauchy and the d'Alembert for higher gradient continuum theories are equivalent: a review of existing results. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150415. | 1.0 | 101       |
| 38 | Synthesis of Fibrous Complex Structures: Designing Microstructure to Deliver Targeted Macroscale Response. Applied Mechanics Reviews, 2015, 67, .  | 4.5 | 101       |
| 39 | Enhanced Piola-Hencky discrete models for pantographic sheets with pivots without deformation energy: Numerics and experiments. International Journal of Solids and Structures, 2018, 147, 94-109.   | 1.3 | 100       |
| 40 | 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        |
| 41 | Extension of the Euler-Bernoulli model of piezoelectric laminates to include 3D effects via a mixed approach. Computers and Structures, 2006, 84, 1438-1458.   | 2.4 | 94        |
| 42 | A visco-poroelastic model of functional adaptation in bones reconstructed with bio-resorbable materials. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1325-1343.   | 1.4 | 94        |
| 43 | Fiber rupture in sheared planar pantographic sheets: Numerical and experimental evidence. Mechanics Research Communications, 2016, 76, 86-90.  | 1.0 | 93        |
| 44 | A variational approach for the deformation of a saturated porous solid. A second-gradient theory extending Terzaghi's effective stress principle. Archive of Applied Mechanics, 2000, 70, 323-337.   | 1.2 | 89        |
| 45 | Pantographic metamaterials show atypical Poynting effect reversal. Mechanics Research Communications, 2018, 89, 6-10.  | 1.0 | 87        |
| 46 | Plane bias extension test for a continuum with two inextensible families of fibers: A variational treatment with Lagrange multipliers and a perturbation solution. International Journal of Solids and Structures, 2016, 81, 1-12.               | 1.3 | 86        |
| 47 | A revival of electric analogs for vibrating mechanical systems aimed to their efficient control by PZT actuators. International Journal of Solids and Structures, 2002, 39, 5295-5324.   | 1.3 | 85        |
| 48 | Variational formulation of pre-stressed solid-fluid mixture theory, with an application to wave phenomena. European Journal of Mechanics, A/Solids, 2008, 27, 582-606.   | 2.1 | 82        |
| 49 | Bias extension test for pantographic sheets: numerical simulations based on second gradient shear energies. Journal of Engineering Mathematics, 2017, 103, 127-157.  | 0.6 | 82        |
| 50 | Viscous second gradient porous materials for bones reconstructed with bio-resorbable grafts. Extreme Mechanics Letters, 2017, 13, 141-147.   | 2.0 | 81        |
| 51 | Vibration control in plates by uniformly distributed PZT actuators interconnected via electric networks. European Journal of Mechanics, A/Solids, 2001, 20, 435-456.   | 2.1 | 78        |
| 52 | On a model of layered piezoelectric beams including transverse stress effect. International Journal of Solids and Structures, 2004, 41, 4473-4502.   | 1.3 | 78        |
| 53 | A variational deduction of second gradient poroelasticity I: general theory. Journal of Mechanics of Materials and Structures, 2008, 3, 507-526.   | 0.4 | 78        |
| 54 | Circuit analog of a beam and its application to multimodal vibration damping, using piezoelectric transducers. International Journal of Circuit Theory and Applications, 2004, 32, 167-198.  | 1.3 | 77        |

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|----|--|-----|-----------|
| 55 | Piezo-ElectroMechanical (PEM) Kirchhoff's Love plates. <i>European Journal of Mechanics, A/Solids</i> , 2004, 23, 689-702.   | 2.1 | 75        |
| 56 | Buckling modes in pantographic lattices. <i>Comptes Rendus - Mecanique</i> , 2016, 344, 487-501.   | 2.1 | 75        |
| 57 | Pattern formation in the three-dimensional deformations of fibered sheets. <i>Mechanics Research Communications</i> , 2015, 69, 164-171.   | 1.0 | 74        |
| 58 | Continuum modelling of piezoelectromechanical truss beams: an application to vibration damping. <i>Archive of Applied Mechanics</i> , 1998, 68, 1-19.  | 1.2 | 73        |
| 59 | Large in-plane elastic deformations of bi-pantographic fabrics: asymptotic homogenization and experimental validation. <i>Mathematics and Mechanics of Solids</i> , 2020, 25, 739-767.   | 1.5 | 72        |
| 60 | A continuum model for the bio-mechanical interactions between living tissue and bio-resorbable graft after bone reconstructive surgery. <i>Comptes Rendus - Mecanique</i> , 2011, 339, 625-640.  | 2.1 | 71        |
| 61 | First versus second gradient energies for planar sheets with two families of inextensible fibres: Investigation on deformation boundary layers, discontinuities and geometrical instabilities. <i>Composites Part B: Engineering</i> , 2017, 115, 423-448. | 5.9 | 71        |
| 62 | Continuum and discrete models for structures including (quasi-) inextensible elasticae with a view to the design and modeling of composite reinforcements. <i>International Journal of Solids and Structures</i> , 2015, 59, 1-17.                         | 1.3 | 70        |
| 63 | Continuum theory for mechanical metamaterials with a cubic lattice substructure. <i>Mathematics and Mechanics of Complex Systems</i> , 2019, 7, 75-98.   | 0.5 | 70        |
| 64 | Elastic pantographic 2D lattices: a numerical analysis on the static response and wave propagation. <i>Proceedings of the Estonian Academy of Sciences</i> , 2015, 64, 219.  | 0.9 | 69        |
| 65 | Cauchy Tetrahedron Argument Applied to Higher Contact Interactions. <i>Archive for Rational Mechanics and Analysis</i> , 2016, 219, 1305-1341.   | 1.1 | 66        |
| 66 | On mechanically driven biological stimulus for bone remodeling as a diffusive phenomenon. <i>Biomechanics and Modeling in Mechanobiology</i> , 2019, 18, 1639-1663.  | 1.4 | 66        |
| 67 | King post truss as a motif for internal structure of (meta)material with controlled elastic properties. <i>Royal Society Open Science</i> , 2017, 4, 171153.   | 1.1 | 65        |
| 68 | Wrinkling in engineering fabrics: a comparison between two different comprehensive modelling approaches. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018, 474, 20180063.                                 | 1.0 | 65        |
| 69 | A procedure for the static analysis of cable structures following elastic catenary theory. <i>International Journal of Solids and Structures</i> , 2014, 51, 1521-1533.  | 1.3 | 63        |
| 70 | Exegesis of the Introduction and Sect. I from "Fundamentals of the Mechanics of Continua" by E. Hellinger. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2017, 97, 477-506.   | 0.9 | 63        |
| 71 | Pantographic beam: a complete second gradient 1D-continuum in plane. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2019, 70, 1.  | 0.7 | 63        |
| 72 | A Lagrangian Hencky-type non-linear model suitable for metamaterials design of shearable and extensible slender deformable bodies alternative to Timoshenko theory. <i>International Journal of Non-Linear Mechanics</i> , 2020, 123, 103481.              | 1.4 | 63        |

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|----|--|-----|-----------|
| 73 | Dynamics of 1D nonlinear pantographic continua. <i>Nonlinear Dynamics</i> , 2017, 88, 21-31.   | 2.7 | 61        |
| 74 | A micro-structured continuum modelling compacting fluid-saturated grounds: the effects of pore-size scale parameter. <i>Acta Mechanica</i> , 1998, 127, 165-182.   | 1.1 | 60        |
| 75 | A low-power circuit for piezoelectric vibration control by synchronized switching on voltage sources. <i>Sensors and Actuators A: Physical</i> , 2010, 161, 245-255.                                     | 2.0 | 60        |
| 76 | Pantographic 2D sheets: Discussion of some numerical investigations and potential applications. <i>International Journal of Non-Linear Mechanics</i> , 2016, 80, 200-208.                                | 1.4 | 60        |
| 77 | Consistent tangent operator for an exact Kirchhoff rod model. <i>Continuum Mechanics and Thermodynamics</i> , 2015, 27, 861-877.   | 1.4 | 59        |
| 78 | An efficient blended mixed B-spline formulation for removing membrane locking in plane curved Kirchhoff rods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 324, 476-511.         | 3.4 | 59        |
| 79 | A reconstructed local $\mathbb{B}$ formulation for isogeometric Kirchhoff Love shells. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 332, 462-487.                                | 3.4 | 59        |
| 80 | A passive electric controller for multimodal vibrations of thin plates. <i>Computers and Structures</i> , 2005, 83, 1236-1250.   | 2.4 | 58        |
| 81 | Control of sound radiation and transmission by a piezoelectric plate with an optimized resistive electrode. <i>European Journal of Mechanics, A/Solids</i> , 2010, 29, 859-870.                          | 2.1 | 58        |
| 82 | Damping of bending waves in truss beams by electrical transmission lines with PZT actuators. <i>Archive of Applied Mechanics</i> , 1998, 68, 626-636.  | 1.2 | 57        |
| 83 | An Eshelbian approach to the nonlinear mechanics of constrained solid-fluid mixtures. <i>Acta Mechanica</i> , 2003, 160, 45-60.  | 1.1 | 57        |
| 84 | A nonlinear Lagrangian particle model for grains assemblies including grain relative rotations. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2019, 43, 1051-1079. | 1.7 | 55        |
| 85 | Chirality in 2D Cosserat media related to stretch-micro-rotation coupling with links to granular micromechanics. <i>International Journal of Solids and Structures</i> , 2020, 202, 28-38.               | 1.3 | 53        |
| 86 | Force-displacement relationship in micro-metric pantographs: Experiments and numerical simulations. <i>Comptes Rendus - Mecanique</i> , 2019, 347, 397-405.  | 2.1 | 50        |
| 87 | A variational deduction of second gradient poroelasticity II: an application to the consolidation problem. <i>Journal of Mechanics of Materials and Structures</i> , 2008, 3, 607-625.                   | 0.4 | 49        |
| 88 | Simplified analysis of a generalized bias test for fabrics with two families of inextensible fibres. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2016, 67, 1.                              | 0.7 | 49        |
| 89 | Three-point bending test of pantographic blocks: numerical and experimental investigation. <i>Mathematics and Mechanics of Solids</i> , 2020, 25, 1965-1978.   | 1.5 | 49        |
| 90 | Thick fibrous composite reinforcements behave as special second-gradient materials: three-point bending of 3D interlocks. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2015, 66, 2041-2060. | 0.7 | 48        |

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|-----|--|-----|-----------|
| 91  | A phenomenological approach to phase transition in classical field theory. International Journal of Engineering Science, 1987, 25, 1469-1475.  | 2.7 | 47        |
| 92  | A solid-fluid mixture model allowing for solid dilatation under external pressure. Continuum Mechanics and Thermodynamics, 2001, 13, 287-306.  | 1.4 | 45        |
| 93  | Saint-Venant's Problem for Porous Linear Elastic Materials. Journal of Elasticity, 1997, 47, 73-81.  | 0.9 | 44        |
| 94  | Isogeometric analysis of fiber reinforced composites using Kirchhoff-Love shell elements. Computer Methods in Applied Mechanics and Engineering, 2020, 362, 112845.  | 3.4 | 43        |
| 95  | Piezo-ElectroMechanical (PEM) structures: passive vibration control using distributed piezoelectric transducers. Comptes Rendus - Mecanique, 2003, 331, 69-76.   | 2.1 | 42        |
| 96  | Some Cases of Unrecognized Transmission of Scientific Knowledge: From Antiquity to Gabrio Piola's Peridynamics and Generalized Continuum Theories. Advanced Structured Materials, 2016, , 77-128.                            | 0.3 | 42        |
| 97  | Exegesis of Sect. II and III.A from "Fundamentals of the Mechanics of Continua" by E. Hellinger. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2018, 98, 31-68.   | 0.9 | 42        |
| 98  | An iso-parametric $G^1$ -conforming finite element for the nonlinear analysis of Kirchhoff rod. Part I: the 2D case. Continuum Mechanics and Thermodynamics, 2020, 32, 1473-1496.  | 1.4 | 41        |
| 99  | On the force density method for slack cable nets. International Journal of Solids and Structures, 2012, 49, 1526-1540.   | 1.3 | 38        |
| 100 | A 1D Continuum Model for Beams with Pantographic Microstructure: Asymptotic Micro-Macro Identification and Numerical Results. Advanced Structured Materials, 2018, , 43-74.  | 0.3 | 38        |
| 101 | On the validation of homogenized modeling for bi-pantographic metamaterials via digital image correlation. International Journal of Solids and Structures, 2021, 208-209, 49-62.   | 1.3 | 38        |
| 102 | Exegesis of Sect. III.B from "Fundamentals of the Mechanics of Continua" by E. Hellinger. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2018, 98, 69-105.   | 0.9 | 36        |
| 103 | Parametric Experimentation on Pantographic Unit Cells Reveals Local Extremum Configuration. Experimental Mechanics, 2019, 59, 927-939.   | 1.1 | 36        |
| 104 | Equilibria determination of elastic articulated duoskelion beams in 2D via a Riks-type algorithm. International Journal of Non-Linear Mechanics, 2021, 128, 103628.  | 1.4 | 36        |
| 105 | A Multi-disciplinary Approach for Mechanical Metamaterial Synthesis: A Hierarchical Modular Multiscale Cellular Structure Paradigm. Advanced Structured Materials, 2019, , 485-505.  | 0.3 | 36        |
| 106 | Multimode vibration suppression with passive two-terminal distributed network incorporating piezoceramic transducers. International Journal of Solids and Structures, 2005, 42, 3115-3132.                                   | 1.3 | 35        |
| 107 | On existence and uniqueness of weak solutions for linear pantographic beam lattices models. Continuum Mechanics and Thermodynamics, 2019, 31, 1843-1861.   | 1.4 | 35        |
| 108 | Two-dimensional continua capable of large elastic extension in two independent directions: Asymptotic homogenization, numerical simulations and experimental evidence. Mechanics Research Communications, 2020, 103, 103466. | 1.0 | 35        |

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|-----|--|-----|-----------|
| 109 | Referential description of the evolution of a 2D swarm of robots interacting with the closer neighbors: Perspectives of continuum modeling via higher gradient continua. <i>International Journal of Non-Linear Mechanics</i> , 2016, 80, 209-220. | 1.4 | 33        |
| 110 | Equilibria of a clamped Euler beam ( <i>Elastica</i> ) with distributed load: Large deformations. <i>Mathematical Models and Methods in Applied Sciences</i> , 2017, 27, 1391-1421.  | 1.7 | 33        |
| 111 | Multiscale DIC Applied to Pantographic Structures. <i>Experimental Mechanics</i> , 2021, 61, 431-443.  | 1.1 | 33        |
| 112 | What are the dominant thermomechanical processes in the basal sediment layer of large ice sheets?. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 1998, 454, 1169-1195.                              | 1.0 | 30        |
| 113 | Minimization of Shear Energy in Two Dimensional Continua with Two Orthogonal Families of Inextensible Fibers: The Case of Standard Bias Extension Test. <i>Journal of Elasticity</i> , 2016, 122, 131-155.   | 0.9 | 29        |
| 114 | On the well posedness of static boundary value problem within the linear dilatational strain gradient elasticity. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2020, 71, 1.   | 0.7 | 29        |
| 115 | Identification of a geometrically nonlinear micromorphic continuum via granular micromechanics. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2021, 72, 1.   | 0.7 | 29        |
| 116 | Axisymmetric deformations of a 2nd grade elastic cylinder. <i>Mechanics Research Communications</i> , 2018, 94, 45-48.   | 1.0 | 28        |
| 117 | A quadrilateral $\langle \mathbb{M} \rangle$ finite element for the Kirchhoff plate model. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 346, 913-951.  | 0.7 | 27        |
| 118 | On nonlinear dilatational strain gradient elasticity. <i>Continuum Mechanics and Thermodynamics</i> , 2021, 33, 1429-1463.   | 1.4 | 26        |
| 119 | On phase transition layers in certain micro-damaged two-phase solids. <i>International Journal of Fracture</i> , 1997, 83, 175-189.  | 1.1 | 24        |
| 120 | Generalized Poynting Effects in Predeformed Prismatic Bars. <i>Journal of Elasticity</i> , 1998, 50, 181-196.  | 0.9 | 24        |
| 121 | Wave propagation in pantographic 2D lattices with internal discontinuities. <i>Proceedings of the Estonian Academy of Sciences</i> , 2015, 64, 325.  | 0.9 | 24        |
| 122 | Two new triangular $\langle \mathbb{M} \rangle$ finite elements with cubic edge rotation for the analysis of Kirchhoff plates. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 356, 354-386.                                  | 0.7 | 24        |
| 123 | Two layers pantographs: A 2D continuum model accounting for the beams' offset and relative rotations as averages in $SO(3)$ Lie groups. <i>International Journal of Solids and Structures</i> , 2021, 216, 43-58.                                  | 1.3 | 24        |
| 124 | On rotational instability within the nonlinear six-parameter shell theory. <i>International Journal of Solids and Structures</i> , 2020, 196-197, 179-189.   | 1.3 | 23        |
| 125 | Second-gradient continua: From Lagrangian to Eulerian and back. <i>Mathematics and Mechanics of Solids</i> , 2022, 27, 2715-2750.  | 1.5 | 23        |
| 126 | Wave motions in unbounded poroelastic solids infused with compressible fluids. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2002, 53, 1110-1138.  | 0.7 | 22        |



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|-----|--|-----|-----------|
| 127 | Investigating the mechanical response of microscale pantographic structures fabricated by multiphoton lithography. <i>Extreme Mechanics Letters</i> , 2021, 43, 101202.                                  | 2.0 | 22        |
| 128 | Poynting effects in pantographic metamaterial captured via multiscale DVC. <i>Journal of Strain Analysis for Engineering Design</i> , 2021, 56, 462-477.   | 1.0 | 22        |
| 129 | Validity of Laplace formula and dependence of surface tension on curvature in second gradient fluids. <i>Mechanics Research Communications</i> , 1995, 22, 485-490.                                      | 1.0 | 21        |
| 130 | SHEARING TESTS APPLIED TO PANTOGRAPHIC STRUCTURES. <i>Acta Polytechnica CTU Proceedings</i> , 0, 7, 1.   | 0.3 | 20        |
| 131 | Against the Fragmentation of Knowledge: The Power of Multidisciplinary Research for the Design of Metamaterials. <i>Advanced Structured Materials</i> , 2016, , 523-545.                                 | 0.3 | 20        |
| 132 | Title is missing!. <i>Journal of Elasticity</i> , 1997, 49, 113-127.   | 0.9 | 19        |
| 133 | A Note on Reduced Strain Gradient Elasticity. <i>Advanced Structured Materials</i> , 2018, , 301-310.  | 0.3 | 19        |
| 134 | Electrical analogs of curved beams and application to piezoelectric network damping. <i>Mathematics and Mechanics of Solids</i> , 2022, 27, 578-601.   | 1.5 | 19        |
| 135 | Large deformations of 1D microstructured systems modeled as generalized Timoshenko beams. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2018, 69, 1.   | 0.7 | 18        |
| 136 | Piola transformations in second-gradient continua. <i>Mechanics Research Communications</i> , 2022, 120, 103836.   | 1.0 | 18        |
| 137 | On the elastic wedge problem within simplified and incomplete strain gradient elasticity theories. <i>International Journal of Solids and Structures</i> , 2022, 239-240, 111433.                        | 1.3 | 18        |
| 138 | Second-order solution of Saint-Venant's problem for an elastic bar predeformed in flexure. <i>International Journal of Non-Linear Mechanics</i> , 2005, 40, 411-422.                                     | 1.4 | 17        |
| 139 | A numerical investigation on impulse-induced nonlinear longitudinal waves in pantographic beams. <i>Mathematics and Mechanics of Solids</i> , 2022, 27, 22-48.   | 1.5 | 17        |
| 140 | Lagrange Multipliers in Infinite Dimensional Spaces, Examples of Application. , 2019, , 1-8.   |     | 17        |
| 141 | A non-linear symmetric $G$ -confined BÄ©zier finite element formulation for the analysis of Kirchhoff beam assemblies. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 387, 111176. |     | 17        |
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