

# Massimo Cuomo

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

3,290  
citations

159573

30  
h-index

149686

56  
g-index

61  
all docs

61  
docs citations

61  
times ranked

1162  
citing authors

#	ARTICLE	IF	CITATIONS
1	Pantographic metamaterials: an example of mathematically driven design and of its technological challenges. <i>Continuum Mechanics and Thermodynamics</i> , 2019, 31, 851-884.	2.2	272
2	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.	2.1	262
3	Analytical continuum mechanics $\hat{A}$ Hamilton's Piola least action principle for second gradient continua and capillary fluids. <i>Mathematics and Mechanics of Solids</i> , 2015, 20, 375-417.	2.4	212
4	Advances in pantographic structures: design, manufacturing, models, experiments and image analyses. <i>Continuum Mechanics and Thermodynamics</i> , 2019, 31, 1231-1282.	2.2	212
5	B-Spline interpolation of Kirchhoff-Love space rods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 256, 251-269.	6.6	211
6	An implicit multi patch B-spline interpolation for Kirchhoff's Love space rod. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 269, 173-197.	6.6	158
7	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.	2.4	126
8	A variational model based on isogeometric interpolation for the analysis of cracked bodies. <i>International Journal of Engineering Science</i> , 2014, 80, 173-188.	5.0	124
9	Piezoelectric Passive Distributed Controllers for Beam Flexural Vibrations. <i>JVC/Journal of Vibration and Control</i> , 2004, 10, 625-659.	2.6	116
10	An isogeometric implicit $\hat{G}$ mixed finite element for Kirchhoff space rods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 298, 325-349.	6.6	112
11	The postulations $\hat{A}$ of the Cauchy and $\hat{A}$ of the Cauchy for higher gradient continuum theories are equivalent: a review of existing results. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20150415.	2.1	101
12	A framework of elastic-plastic damaging model for concrete under multiaxial stress states. <i>International Journal of Plasticity</i> , 2006, 22, 2272-2300.	8.8	99
13	Bias extension test for pantographic sheets: numerical simulations based on second gradient shear energies. <i>Journal of Engineering Mathematics</i> , 2017, 103, 127-157.	1.2	82
14	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.	12.0	71
15	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.	2.7	63
16	A new thermodynamically consistent continuum model for hardening plasticity coupled with damage. <i>International Journal of Solids and Structures</i> , 2002, 39, 6241-6271.	2.7	60
17	Consistent tangent operator for an exact Kirchhoff rod model. <i>Continuum Mechanics and Thermodynamics</i> , 2015, 27, 861-877.	2.2	59
18	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.	6.6	59

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19	A reconstructed local formulation for isogeometric Kirchhoff Love shells. Computer Methods in Applied Mechanics and Engineering, 2018, 332, 462-487.	6.6	43
20	Experimental global analysis of the efficiency of carbon fiber anchors applied over CFRP strengthened bricks. Construction and Building Materials, 2014, 53, 203-212.	7.2	50
21	Simplified analysis of a generalized bias test for fabrics with two families of inextensible fibres. Zeitschrift Fur Angewandte Mathematik Und Physik, 2016, 67, 1.	1.4	49
22	An enriched finite element for crack opening and rebar slip in reinforced concrete members. International Journal of Fracture, 2012, 178, 33-50.	2.2	46
23	A complementary energy formulation of no tension masonry-like solids. Computer Methods in Applied Mechanics and Engineering, 2000, 189, 313-339.	6.6	43
24	Isogeometric analysis of fiber reinforced composites using Kirchhoff Love shell elements. Computer Methods in Applied Mechanics and Engineering, 2020, 362, 112845.	6.6	43
25	The efficiency of mechanical anchors in CFRP strengthening of masonry: An experimental analysis. Composites Part B: Engineering, 2014, 64, 1-15.	12.0	39
26	On the force density method for slack cable nets. International Journal of Solids and Structures, 2012, 49, 1526-1540.	2.7	38
27	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.	1.8	35
28	Complementary energy approach to contact problems based on consistent augmented Lagrangian formulation. Mathematical and Computer Modelling, 1998, 28, 185-204.	2.0	34
29	A globally convergent numerical algorithm for damaging elasto-plasticity based on the Multiplier method. International Journal for Numerical Methods in Engineering, 2005, 63, 1089-1125.	2.8	34
30	Meso-scale simulation of concrete multiaxial behaviour. European Journal of Environmental and Civil Engineering, 2017, 21, 896-911.	2.1	33
31	Minimization of Shear Energy in Two Dimensional Continua with Two Orthogonal Families of Inextensible Fibers: The Case of Standard Bias Extension Test. Journal of Elasticity, 2016, 122, 131-155.	1.9	29
32	Forms of the dissipation function for a class of viscoplastic models. Mathematics and Mechanics of Complex Systems, 2017, 5, 217-237.	0.9	29
33	Axisymmetric deformations of a 2nd grade elastic cylinder. Mechanics Research Communications, 2018, 94, 45-48.	1.8	28
34	Crack opening conditions at corner nodes in FE analysis with cracking along mesh lines. Engineering Fracture Mechanics, 2007, 74, 1963-1982.	4.3	27
35	A quadrilateral finite element for the Kirchhoff plate model. Computer Methods in Applied Mechanics and Engineering, 2017, 317, 1-15.	6.6	43
36	Two new triangular finite elements with cubic edge rotation for the analysis of Kirchhoff plates. Computer Methods in Applied Mechanics and Engineering, 2019, 356, 354-386.	6.6	43

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37	Experimental Analysis for Piezoelectric Transducers Applications into Roads Pavements. <i>Advanced Materials Research</i> , 0, 684, 253-257.	0.3	22
38	On inter-element forces in the FEM-displacement formulation, and implications for stress recovery. <i>International Journal for Numerical Methods in Engineering</i> , 2006, 66, 502-528.	2.8	21
39	Incremental analysis of plane frames with geometric and material nonlinearities. <i>Engineering Structures</i> , 1988, 10, 2-12.	5.3	17
40	A non-linear symmetric $G$ -conforming BÄ©zier finite element formulation for the analysis of Kirchhoff beam assemblies. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 387, 114176.	6.6	17
41	Strain and shear stress fields analysis by means of Digital Image Correlation on CFRP to brick bonded joints fastened by fiber anchors. <i>Construction and Building Materials</i> , 2016, 106, 78-88.	7.2	16
42	Continuum damage model for strain gradient materials with applications to 1D examples. <i>Continuum Mechanics and Thermodynamics</i> , 2019, 31, 969-987.	2.2	15
43	Directional properties of fibre network materials evaluated by means of discrete homogenization. <i>European Journal of Mechanics, A/Solids</i> , 2020, 82, 104009.	3.7	14
44	An implicit $G$ -conforming bi-cubic interpolation for the analysis of smooth and folded Kirchhoff Love shell assemblies. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 373, 113476.	6.6	14
45	An implicit strong $\{G\}^1$ -conforming formulation for the analysis of the Kirchhoff plate model. <i>Continuum Mechanics and Thermodynamics</i> , 2020, 32, 621-645.	2.2	13
46	Continuum model of microstructure induced softening for strain gradient materials. <i>Mathematics and Mechanics of Solids</i> , 2019, 24, 2374-2391.	2.4	11
47	An updated Lagrangian BÄ©zier finite element formulation for the analysis of slender beams. <i>Mathematics and Mechanics of Solids</i> , 2022, 27, 2110-2138.	2.4	11
48	Experimental Investigation of Root Tensile Strength for Slope Stabilization. <i>Indian Geotechnical Journal</i> , 2019, 49, 687-697.	1.4	10
49	Comparison of two forms of strain decomposition in an elastic-plastic damaging model for concrete. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2007, 15, S405-S423.	2.0	9
50	A method for the calculation of inter-element stresses in 3D. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 254, 222-237.	6.6	8
51	Prototyping of a Novel Rammed Earth Technology. <i>Sustainability</i> , 2021, 13, 11948.	3.2	6
52	An explicit formulation of the Green's operator for general one-dimensional structures. <i>European Journal of Mechanics, A/Solids</i> , 2002, 21, 493-512.	3.7	5
53	Experimental evaluation of the effect of partial saturation of construction moisture on CFRP-concrete debonding. <i>Composites Part B: Engineering</i> , 2017, 127, 70-77.	12.0	4
54	The tangent stiffness matrix of elastic frame members for vanishingly small values of the axial force. <i>Meccanica</i> , 1986, 21, 144-150.	2.0	3

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55	Effective anisotropic properties of fibre network sheets. European Journal of Mechanics, A/Solids, 2022, 93, 104492.	3.7	3
56	Digital Image Correlation Analysis of CFRP to Brick Bonded Joints Fastened by Fiber Anchor. Key Engineering Materials, 2014, 624, 238-245.	0.4	2
57	Discrete Homogenization Procedure for Estimating the Mechanical Properties of Nets and Pantographic Structures. Lecture Notes in Mechanical Engineering, 2020, , 716-732.	0.4	2
58	Experimental validation of an algorithm for masonry vaults reinforced by the $\hat{\text{C}}$ -Wrap technique. , 2013, , .		1
59	Mixed Variational Methods: Considerations on Numerical Applications. , 2018, , 1-18.		0
60	Mixed Variational Methods: Considerations on Numerical Applications. , 2020, , 1657-1673.		0
61	Implicit $\mathbb{C}^1$ -Conforming Plate Elements. Lecture Notes in Mechanical Engineering, 2020, , 1200-1216.	0.4	0