

Simon R Eugster

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4579634/publications.pdf>

Version: 2024-02-01

46
papers

1,036
citations

567281

15
h-index

434195

31
g-index

48
all docs

48
docs citations

48
times ranked

311
citing authors

#	ARTICLE	IF	CITATIONS
1	Hellinger's 1913 Encyclopedia Article on the Fundamentals of the Mechanics of Continua. <i>Advanced Structured Materials</i> , 2022, , 99-313.	0.5	2
2	Piola transformations in second-gradient continua. <i>Mechanics Research Communications</i> , 2022, 120, 103836.	1.8	18
3	Soft Pneumatic Actuator Model Based on a Pressure-Dependent Spatial Nonlinear Rod Theory. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 2471-2478.	5.1	6
4	Second-gradient continua: From Lagrangian to Eulerian and back. <i>Mathematics and Mechanics of Solids</i> , 2022, 27, 2715-2750.	2.4	23
5	Corrugated shells: An algorithm for generating double-curvature geometric surfaces for structural analysis. <i>Thin-Walled Structures</i> , 2022, 173, 109019.	5.3	12
6	On the divergence theorem for submanifolds of Euclidean vector spaces within the theory of second-gradient continua. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2022, 73, 1.	1.4	5
7	Generalized beam model for the analysis of wave propagation with a symmetric pattern of deformation in planar pantographic sheets. <i>Wave Motion</i> , 2022, 113, 102986.	2.0	16
8	The principle of virtual work and Hamilton's principle on Galilean manifolds. <i>Journal of Geometric Mechanics</i> , 2021, 13, 167.	0.8	4
9	Finite element formulations for constrained spatial nonlinear beam theories. <i>Mathematics and Mechanics of Solids</i> , 2021, 26, 1838-1863.	2.4	21
10	A nonsmooth generalized α method for mechanical systems with frictional contact. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 6497-6526.	2.8	8
11	A second gradient continuum formulation for bi-pantographic fabrics. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2021, 21, .	0.2	1
12	Dynamic simulation of the Wilberforce pendulum using constrained spatial nonlinear beam finite elements. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2021, 21, .	0.2	0
13	Simulating mechanical systems with frictional contact using a nonsmooth generalized α method. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2021, 21, .	0.2	0
14	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.	2.4	72
15	The Tippedisk: a Tippetop Without Rotational Symmetry. <i>Regular and Chaotic Dynamics</i> , 2020, 25, 553-580.	0.8	9
16	Geometric description of time-dependent finite-dimensional mechanical systems. <i>Mathematics and Mechanics of Solids</i> , 2020, 25, 2050-2075.	2.4	2
17	Isogeometric analysis of fiber reinforced composites using Kirchhoff-Love shell elements. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 362, 112845.	6.6	43
18	Finite Element Analysis of Planar Nonlinear Classical Beam Theories. <i>Advanced Structured Materials</i> , 2020, , 123-157.	0.5	11

#	ARTICLE	IF	CITATIONS
19	A Variational Formulation of Classical Nonlinear Beam Theories. <i>Advanced Structured Materials</i> , 2020, , 95-121.	0.5	14
20	Variational Methods in the Theory of Beams and Lattices. , 2020, , 2654-2662.		2
21	Pantographic beam: a complete second gradient 1D-continuum in plane. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2019, 70, 1.	1.4	63
22	Continuum theory for mechanical metamaterials with a cubic lattice substructure. <i>Mathematics and Mechanics of Complex Systems</i> , 2019, 7, 75-98.	0.9	70
23	Advances in pantographic structures: design, manufacturing, models, experiments and image analyses. <i>Continuum Mechanics and Thermodynamics</i> , 2019, 31, 1231-1282.	2.2	212
24	Estimating Fatigue Related Damage in Alloys under Block-type Non-symmetrical Low-cycle Loading. <i>Advanced Structured Materials</i> , 2019, , 81-92.	0.5	5
25	On different geometric approaches to the dynamics of finite-dimensional mechanical systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019, 19, e201900327.	0.2	0
26	Kinematics of finite-dimensional mechanical systems on Galilean manifolds. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019, 19, e201900329.	0.2	0
27	Dynamics of finite-dimensional mechanical systems on Galilean manifolds. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019, 19, e201900328.	0.2	0
28	A Ritz approach for the static analysis of planar pantographic structures modeled with nonlinear Euler-Bernoulli beams. <i>Continuum Mechanics and Thermodynamics</i> , 2018, 30, 1103-1123.	2.2	87
29	Exegesis of Sect. II and III.A from "Fundamentals of the Mechanics of Continua" by E. Hellinger. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2018, 98, 31-68.	1.6	42
30	Exegesis of Sect. III.B from "Fundamentals of the Mechanics of Continua" by E. Hellinger. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2018, 98, 69-105.	1.6	36
31	Time finite element based Moreau-type integrators. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 114, 215-231.	2.8	16
32	A nonlinear Timoshenko beam formulation for modeling a tendon-driven compliant neck mechanism. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018, 18, e201800208.	0.2	6
33	A geometric view on the kinematics of finite-dimensional mechanical systems. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018, 18, e201800221.	0.2	0
34	Modeling planar pantographic sheets using a nonlinear Euler-Bernoulli beam element based on B-spline functions. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018, 18, e201800220.	0.2	14
35	Reduced Models for the Static Simulation of an Elastic Continuum Mechanism. <i>IFAC-PapersOnLine</i> , 2018, 51, 403-408.	0.9	9
36	Variational space-time elements for large-scale systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 326, 541-572.	6.6	15

#	ARTICLE	IF	CITATIONS
37	Exegesis of the Introduction and Sect. 1 from "Fundamentals of the Mechanics of Continua" by E. Hellinger. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2017, 97, 477-506.	1.6	63
38	A robot inspired by a non-smooth point mass model of a worm. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 177-178.	0.2	0
39	An ignored source in the foundations of continuum physics "Die Allgemeinen Ansätze der Mechanik der Kontinua" by E. Hellinger. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 413-414.	0.2	4
40	On the notion of stress in classical continuum mechanics. Mathematics and Mechanics of Complex Systems, 2017, 5, 299-338.	0.9	17
41	An alternative perspective on the concept of stress in classical continuum mechanics. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 331-332.	0.2	0
42	A Moreau-type Variational Integrator. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 941-944.	0.2	2
43	An Intrinsic Geometric Formulation of the Equilibrium Equations in Continuum Mechanics. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 289-290.	0.2	2
44	Geometric Continuum Mechanics and Induced Beam Theories. Lecture Notes in Applied and Computational Mechanics, 2015, , .	2.2	18
45	Director-based beam finite elements relying on the geometrically exact beam theory formulated in skew coordinates. International Journal for Numerical Methods in Engineering, 2014, 97, 111-129.	2.8	60
46	Constraints in structural and rigid body mechanics: a frictional contact problem. Annals of Solid and Structural Mechanics, 2013, 5, 1-13.	0.5	15