Simon R Eugster

List of Publications by Year
in descending order

46	1,036	567281 15	434195 31
papers	citations	h-index	g-index

48	48	48	311
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Advances in pantographic structures: design, manufacturing, models, experiments and image analyses. Continuum Mechanics and Thermodynamics, 2019, 31, 1231-1282.	2.2	212
2	A Ritz approach for the static analysis of planar pantographic structures modeled with nonlinear Eulerâ€“Bernoulli beams. Continuum Mechanics and Thermodynamics, 2018, 30, 1103-1123.	2.2	87
3	Large in-plane elastic deformations of bi-pantographic fabrics: asymptotic homogenization and experimental validation. Mathematics and Mechanics of Solids, 2020, 25, 739-767.	2.4	72
4	Continuum theory for mechanical metamaterials with a cubic lattice substructure. Mathematics and Mechanics of Complex Systems, 2019, 7, 75-98.	0.9	70
5	Exegesis of the Introduction and Sect.Âl from â€œFundamentals of the Mechanics of Continuaâ€^{**} by E. Hellinger. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2017, 97, 477-506.	1.6	63
6	Pantographic beam: a complete second gradient 1D-continuum in plane. Zeitschrift Fur Angewandte Mathematik Und Physik, 2019, 70, 1.	1.4	63
7	Directorâ€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
8	Isogeometric analysis of fiber reinforced composites using Kirchhoffâ€“Love shell elements. Computer Methods in Applied Mechanics and Engineering, 2020, 362, 112845.	6.6	43
9	Exegesis of Sect. II and III.A from â€œFundamentals of the Mechanics of Continuaâ€•by E. Hellinger. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2018, 98, 31-68.	1.6	42
10	Exegesis of Sect. III.B from â€œFundamentals of the Mechanics of Continuaâ€•by E. Hellinger. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2018, 98, 69-105.	1.6	36
11	Second-gradient continua: From Lagrangian to Eulerian and back. Mathematics and Mechanics of Solids, 2022, 27, 2715-2750.	2.4	23
12	Finite element formulations for constrained spatial nonlinear beam theories. Mathematics and Mechanics of Solids, 2021, 26, 1838-1863.	2.4	21
13	Geometric Continuum Mechanics and Induced Beam Theories. Lecture Notes in Applied and Computational Mechanics, 2015, , .	2.2	18
14	Piola transformations in second-gradient continua. Mechanics Research Communications, 2022, 120, 103836.	1.8	18
15	On the notion of stress in classical continuum mechanics. Mathematics and Mechanics of Complex Systems, 2017, 5, 299-338.	0.9	17
16	Time finite element based Moreauâ€type integrators. International Journal for Numerical Methods in Engineering, 2018, 114, 215-231.	2.8	16
17	Generalized beam model for the analysis of wave propagation with a symmetric pattern of deformation in planar pantographic sheets. Wave Motion, 2022, 113, 102986.	2.0	16
18	Constraints in structural and rigid body mechanics: a frictional contact problem. Annals of Solid and Structural Mechanics, 2013, 5, 1-13.	0.5	15

#	Article	IF	Citations
19	Variational spaceâ€“time elements for large-scale systems. Computer Methods in Applied Mechanics and Engineering, 2017, 326, 541-572.	6.6	15
20	Modeling planar pantographic sheets using a nonlinear Eulerâ€“Bernoulli beam element based on Bâ€spline functions. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800220.	0.2	14
21	A Variational Formulation of Classical Nonlinear Beam Theories. Advanced Structured Materials, 2020, , 95-121.	0.5	14
22	Corrugated shells: An algorithm for generating double-curvature geometric surfaces for structural analysis. Thin-Walled Structures, 2022, 173, 109019.	5.3	12
23	Finite Element Analysis of Planar Nonlinear Classical Beam Theories. Advanced Structured Materials, 2020, , 123-157.	0.5	11
24	Reduced Models for the Static Simulation of an Elastic Continuum Mechanism. IFAC-PapersOnLine, 2018, 51, 403-408.	0.9	9
25	The Tippedisk: a Tippetop Without Rotational Symmetry. Regular and Chaotic Dynamics, 2020, 25, 553-580.	0.8	9
26	A nonsmooth generalizedâ€alpha method for mechanical systemsÂwith frictional contact. International Journal for Numerical Methods in Engineering, 2021, 122, 6497-6526.	2.8	8
27	A nonlinear Timoshenko beam formulation for modeling a tendonâ€driven compliant neck mechanism. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800208.	0.2	6
28	Soft Pneumatic Actuator Model Based on a Pressure-Dependent Spatial Nonlinear Rod Theory. IEEE Robotics and Automation Letters, 2022, 7, 2471-2478.	5.1	6
29	Estimating Fatigue Related Damage in Alloys under Block-type Non-symmetrical Low-cycle Loading. Advanced Structured Materials, 2019, , 81-92.	0.5	5
30	On the divergence theorem for submanifolds of Euclidean vector spaces within the theory of second-gradient continua. Zeitschrift Fur Angewandte Mathematik Und Physik, 2022, 73, 1.	1.4	5
31	An ignored source in the foundations of continuum physics â€œDie Allgemeinen AnsÃtze der Mechanik der Kontinuaâ€•by E. Hellinger. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 413-414.	0.2	4
32	The principle of virtual work and Hamilton's principle on Galilean manifolds. Journal of Geometric Mechanics, 2021, 13, 167.	0.8	4
33	An Intrinsic Geometric Formulation of the Equilibrium Equations in Continuum Mechanics. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 289-290.	0.2	2
34	A Moreauâ€type Variational Integrator. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 941-944.	0.2	2
35	Geometric description of time-dependent finite-dimensional mechanical systems. Mathematics and Mechanics of Solids, 2020, 25, 2050-2075.	2.4	2
36	Hellingerâ€™s 1913 Encyclopedia Article on the Fundamentals of the Mechanics of Continua. Advanced Structured Materials, 2022, , 99-313.	0.5	2

#	Article	IF	Citations
37	Variational Methods in the Theory of Beams and Lattices. , 2020, , 2654-2662.		2
38	A second gradient continuum formulation for biâ€pantographic fabrics. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	1
39	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
40	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
41	A geometric view on the kinematics of finiteâ€dimensional mechanical systems. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800221.	0.2	0
42	On different geometric approaches to the dynamics of finiteâ€dimensional mechanical systems. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900327.	0.2	0
43	Kinematics of finiteâ€dimensional mechanical systems on Galilean manifolds. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900329.	0.2	0
44	Dynamics of finiteâ€dimensional mechanical systems on Galilean manifolds. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900328.	0.2	0
45	Dynamic simulation of the Wilberforce pendulum using constrained spatial nonlinear beam finite elements. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0
46	Simulating mechanical systems with frictional contact using a nonsmooth generalizedâ€alpha method. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0