

Daniel Balzani

List of Publications by Year in descending order

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139
papers

1,926
citations

304602

22
h-index

276775

41
g-index

148
all docs

148
docs citations

148
times ranked

1332
citing authors

#	ARTICLE	IF	CITATIONS
1	A polyconvex framework for soft biological tissues. Adjustment to experimental data. <i>International Journal of Solids and Structures</i> , 2006, 43, 6052-6070.	1.3	270
2	A variational approach for materially stable anisotropic hyperelasticity. <i>International Journal of Solids and Structures</i> , 2005, 42, 4352-4371.	1.3	160
3	Constitutive framework for the modeling of damage in collagenous soft tissues with application to arterial walls. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 213-216, 139-151.	3.4	123
4	Simulation of discontinuous damage incorporating residual stresses in circumferentially overstretched atherosclerotic arteries. <i>Acta Biomaterialia</i> , 2006, 2, 609-618.	4.1	117
5	Approximation of random microstructures by periodic statistically similar representative volume elements based on lineal-path functions. <i>Archive of Applied Mechanics</i> , 2011, 81, 975-997.	1.2	84
6	Selective enzymatic removal of elastin and collagen from human abdominal aortas: Uniaxial mechanical response and constitutive modeling. <i>Acta Biomaterialia</i> , 2015, 17, 125-136.	4.1	60
7	Construction of two- and three-dimensional statistically similar RVEs for coupled micro-macro simulations. <i>Computational Mechanics</i> , 2014, 54, 1269-1284.	2.2	59
8	A new mixed finite element based on different approximations of the minors of deformation tensors. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 3583-3600.	3.4	58
9	Computational modeling of dual-phase steels based on representative three-dimensional microstructures obtained from EBSD data. <i>Archive of Applied Mechanics</i> , 2016, 86, 575-598.	1.2	51
10	Robust numerical calculation of tangent moduli at finite strains based on complex-step derivative approximation and its application to localization analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 269, 454-470.	3.4	47
11	Polyacrylamide Bead Sensors for in vivo Quantification of Cell-Scale Stress in Zebrafish Development. <i>Scientific Reports</i> , 2019, 9, 17031.	1.6	47
12	A highly accurate 1st- and 2nd-order differentiation scheme for hyperelastic material models based on hyper-dual numbers. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 283, 22-45.	3.4	42
13	Statistical approach for a continuum description of damage evolution in soft collagenous tissues. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 278, 41-61.	3.4	37
14	A novel mixed finite element for finite anisotropic elasticity; the SKA-element Simplified Kinematics for Anisotropy. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 310, 475-494.	3.4	36
15	Numerical modeling of fluid-structure interaction in arteries with anisotropic polyconvex hyperelastic and anisotropic viscoelastic material models at finite strains. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2016, 32, e02756.	1.0	36
16	Computational model for the cell-mechanical response of the osteocyte cytoskeleton based on self-stabilizing tensegrity structures. <i>Biomechanics and Modeling in Mechanobiology</i> , 2013, 12, 167-183.	1.4	35
17	Relaxed incremental variational formulation for damage at large strains with application to fiber-reinforced materials and materials with truss-like microstructures. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 92, 551-570.	1.5	32
18	Parallel simulation of patient-specific atherosclerotic arteries for the enhancement of intravascular ultrasound diagnostics. <i>Engineering Computations</i> , 2012, 29, 888-906.	0.7	31

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19	Design of 3D statistically similar Representative Volume Elements based on Minkowski functionals. <i>Mechanics of Materials</i> , 2015, 90, 185-201.	1.7	31
20	Analysis of thin shells using anisotropic polyconvex energy densities. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 1015-1032.	3.4	28
21	Geometrically nonlinear simulation of textile membrane structures based on orthotropic hyperelastic energy functions. <i>Composite Structures</i> , 2019, 223, 110908.	3.1	28
22	Numerical simulation of residual stresses in arterial walls. <i>Computational Materials Science</i> , 2007, 39, 117-123.	1.4	26
23	Numerical calculation of thermo-mechanical problems at large strains based on complex step derivative approximation of tangent stiffness matrices. <i>Computational Mechanics</i> , 2015, 55, 861-871.	2.2	21
24	On the mechanical modeling of anisotropic biological soft tissue and iterative parallel solution strategies. <i>Archive of Applied Mechanics</i> , 2010, 80, 479-488.	1.2	20
25	Relaxed incremental variational approach for the modeling of damage-induced stress hysteresis in arterial walls. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 58, 149-162.	1.5	20
26	Track M. <i>Biomedizinische Technik</i> , 2014, 59, s910-s1027.	0.9	19
27	Implementation of incremental variational formulations based on the numerical calculation of derivatives using hyper dual numbers. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 301, 216-241.	3.4	19
28	Method for the unique identification of hyperelastic material properties using full-field measures. Application to the passive myocardium material response. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2017, 33, e2866.	1.0	17
29	Mechanical damage characterization in human femoropopliteal arteries of different ages. <i>Acta Biomaterialia</i> , 2019, 90, 225-240.	4.1	16
30	A Simple Model for Anisotropic Damage with Applications to Soft Tissues. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2004, 4, 236-237.	0.2	13
31	Influence of isotropic and anisotropic material models on the mechanical response in arterial walls as a result of supra-physiological loadings. <i>Mechanics Research Communications</i> , 2015, 64, 29-37.	1.0	13
32	Modeling of Microstructure Evolution with Dynamic Recrystallization in Finite Element Simulations of Martensitic Steel. <i>Steel Research International</i> , 2016, 87, 37-45.	1.0	12
33	Truncated hierarchical B-spline material point method for large deformation geotechnical problems. <i>Computers and Geotechnics</i> , 2021, 134, 104097.	2.3	12
34	Aspects of Modeling and Computer Simulation of Soft Tissues: Applications to Arterial Walls. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2005, 36, 795-801.	0.5	11
35	Quantification of uncertain macroscopic material properties resulting from variations of microstructure morphology based on statistically similar volume elements: application to dual-phase steel microstructures. <i>Computational Mechanics</i> , 2019, 64, 1621-1637.	2.2	11
36	Estimating cardiomyofiber strain in vivo by solving a computational model. <i>Medical Image Analysis</i> , 2021, 68, 101932.	7.0	11

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37	Some basic ideas for the reconstruction of statistically similar microstructures for multiscale simulations. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2008, 8, 10533-10534.	0.2	10
38	Comparative analysis of damage functions for soft tissues: Properties at damage initialization. <i>Mathematics and Mechanics of Solids</i> , 2015, 20, 480-492.	1.5	10
39	Construction of Statistically Similar Representative Volume Elements – Comparative Study Regarding Different Statistical Descriptors. <i>Procedia Engineering</i> , 2014, 81, 1360-1365.	1.2	9
40	Automated simulation of voxel-based microstructures based on enhanced finite cell approach. <i>Archive of Applied Mechanics</i> , 2020, 90, 2255-2273.	1.2	9
41	Saturation of the stress-strain behaviour of architectural fabrics. <i>Materials and Design</i> , 2020, 191, 108584.	3.3	9
42	An extended Hamilton principle as unifying theory for coupled problems and dissipative microstructure evolution. <i>Continuum Mechanics and Thermodynamics</i> , 2021, 33, 1931-1956.	1.4	9
43	A combined growth and remodeling framework for the approximation of residual stresses in arterial walls. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2018, 98, 2072-2100.	0.9	8
44	Efficient and robust numerical treatment of a gradient-enhanced damage model at large deformations. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 774-793.	1.5	8
45	Simulation of crack propagation based on eigenstress in brittle and ductile materials subject to finite strains. <i>Archive of Applied Mechanics</i> , 2022, 92, 1199-1221.	1.2	8
46	Fluid-structure interaction simulation of tissue degradation and its effects on intra-aneurysm hemodynamics. <i>Biomechanics and Modeling in Mechanobiology</i> , 2022, 21, 671-683.	1.4	8
47	An algorithmic scheme for the automated calculation of fiber orientations in arterial walls. <i>Computational Mechanics</i> , 2016, 58, 861-878.	2.2	7
48	Method for the quantification of rupture probability in soft collagenous tissues. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2017, 33, e02781.	1.0	7
49	A new nonlinear polyconvex orthotropic material model for the robust simulation of technical fabrics in civil engineering applications at large strains – Validation with large-scale experiment/Ein neues polykonvexes orthotropes Materialmodell zur robusten Simulation von Textilmembranen im Bauingenieurwesen unter Berücksichtigung großer Deformationen – Validierung anhand eines Großbauteilversuchs. <i>Bauingenieur</i> , 2019, 94, 488-497.	0.1	7
50	On the Potential Self-Amplification of Aneurysms Due to Tissue Degradation and Blood Flow Revealed From FSI Simulations. <i>Frontiers in Physiology</i> , 2021, 12, 785780.	1.3	7
51	Construction of anisotropic polyconvex energies and applications to thin shells. <i>Computational Materials Science</i> , 2009, 46, 639-641.	1.4	6
52	Construction of statistically similar representative volume elements for discontinuous fiber composites. <i>Composite Structures</i> , 2018, 203, 193-203.	3.1	6
53	Construction of Statistically Similar Representative Volume Elements. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2014, , 355-412.	0.3	6
54	A new variational approach for the thermodynamic topology optimization of hyperelastic structures. <i>Computational Mechanics</i> , 2021, 67, 455-480.	2.2	6

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55	Simulation of Deformation, Damage and Residual Stresses in Arterial Walls. <i>Advanced Engineering Materials</i> , 2008, 10, 315-321.	1.6	5
56	On the Reconstruction and Computation of Dual-Phase Steel Microstructures Based on 3D EBSD Data. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2011, 11, 503-504.	0.2	5
57	First Steps Towards the Direct Micro-Macro Simulation of Reinforced Concrete Under Impact Loading. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018, 18, e201800181.	0.2	5
58	Design and Optimization of Steel Car Body Structures via Local Laser-Strengthening. <i>Engineering</i> , 2016, 08, 276-286.	0.4	5
59	Simulation of crack propagation through voxel-based, heterogeneous structures based on eigenstress and finite cells. <i>Computational Mechanics</i> , 2022, 70, 385-406.	2.2	5
60	FE2-Simulations in Elasto-Plasticity using Statistically Similar Representative Volume Elements. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2009, 9, 39-42.	0.2	4
61	Simulation of Damage Hysteresis in Soft Biological Tissues. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2009, 9, 155-156.	0.2	4
62	Influence of microstructure morphology on multi-scale modeling of low-alloyed TRIP-steels. <i>Engineering Computations</i> , 2018, 35, 499-528.	0.7	4
63	Three-field mixed finite element formulations for gradient elasticity at finite strains. <i>GAMM Mitteilungen</i> , 2020, 43, e202000002.	2.7	4
64	Computational Micro-Macro Analysis of Impact on Strain-Hardening Cementitious Composites (SHCC) Including Microscopic Inertia. <i>Materials</i> , 2020, 13, 4934.	1.3	4
65	The Elastic Share of Inelastic Stress-Strain Paths of Woven Fabrics. <i>Materials</i> , 2020, 13, 4243.	1.3	4
66	MODELING OF ANISOTROPIC GROWTH AND RESIDUAL STRESSES IN ARTERIAL WALLS. <i>Acta Polytechnica CTU Proceedings</i> , 0, 7, 85.	0.3	4
67	Applications of anisotropic polyconvex energies: thin shells and biomechanics of arterial walls. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2010, , 131-175.	0.3	3
68	Some Basic Ideas for the Simulation of Wave Propagation in Microstructures using Proper Orthogonal Decomposition. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2016, 16, 333-334.	0.2	3
69	On the Modeling of Textile Membranes with Nonlinear Anisotropic Material Behavior. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2017, 17, 433-434.	0.2	3
70	EXASTEEL: Towards a Virtual Laboratory for the Multiscale Simulation of Dual-Phase Steel Using High-Performance Computing. <i>Lecture Notes in Computational Science and Engineering</i> , 2020, , 351-404.	0.1	3
71	Efficient numerical treatment of a gradient damage model for materials undergoing large deformations. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2021, 21, .	0.2	3
72	A new method for the in vivo identification of degenerated material property ranges of the human eye: feasibility analysis based on synthetic data. <i>Biomechanics and Modeling in Mechanobiology</i> , 2022, 21, 401-418.	1.4	3

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73	Simulation of Arterial Walls: Growth, Fiber Reorientation, and Active Response. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2022, , 181-209.	0.7	3
74	On the Construction of Statistically Similar Representative Volume Elements Based on the Lineal-Path Function. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2010, 10, 399-400.	0.2	2
75	Complex-Step Derivative Approximation Schemes for the Robust Calculation of Numerical Constitutive Tangent Moduli. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2013, 13, 167-168.	0.2	2
76	Two-scale Modeling of DP Steel Incorporating Distributed Properties Inside Micro-constituents. <i>Procedia Engineering</i> , 2014, 81, 1390-1395.	1.2	2
77	Calculation of Stresses and Consistent Tangent Moduli from Automatic Differentiation of Hyperelastic Strain Energy Functions Through the Use of Hyper Dual Numbers. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2014, 14, 429-430.	0.2	2
78	Numerical modeling of a sub-sonic moving load front along a rod's skin. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2015, 15, 535-536.	0.2	2
79	Orthotropic Hyperelastic Energy Functions for the Geometrically Nonlinear Simulation of Textile Membrane Structures. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019, 19, e201900264.	0.2	2
80	Architectural woven polyester fabrics: examination of possible classification of stiffness values in correlation with strength values. <i>Architectural Engineering and Design Management</i> , 2021, 17, 281-298.	1.2	2
81	Computation of the Sharpest Bounds on Probabilities under the Influence of Polymorphic Uncertainties. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2021, 20, e202000046.	0.2	2
82	A general, implicit, finite-strain FE ² framework for the simulation of dynamic problems on two scales. <i>Computational Mechanics</i> , 2021, 67, 1375-1394.	2.2	2
83	Construction of Statistically Similar RVEs for 3D Microstructures. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2012, 12, 429-430.	0.2	1
84	Designing Statistically Similar RVEs for 3D Dual Phase Steel Microstructures. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2013, 13, 271-272.	0.2	1
85	Material Modeling of the Damage Behavior of Arterial Tissues. <i>Biomedizinische Technik</i> , 2013, 58 Suppl 1, .	0.9	1
86	Modeling the Physiological Behavior of Arterial Walls – Comparative Study Regarding the Viscoelastic Response. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2014, 14, 95-96.	0.2	1
87	Automatic Implementation of Elasto-plastic Incremental Formulations at Finite Strains using Hyper-Dual Numbers. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2015, 15, 367-368.	0.2	1
88	Numerical material testing based on statistically similar representative volume elements for discontinuous fiber composites. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018, 18, e201800274.	0.2	1
89	Modeling of structures with polymorphic uncertainties at different length scales. <i>GAMM Mitteilungen</i> , 2019, 42, e201900006.	2.7	1
90	A New Continuous FE Formulation for Finite Gradient Elasticity. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019, 19, e201900341.	0.2	1

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91	Optimal Bounds for the Probability of Failure of Sheet Metal Forming Processes of DP Steel. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900215.	0.2	1
92	Numerical material testing for discontinuous fiber composites using statistically similar representative volume elements. Scientific Reports, 2020, 10, 10608.	1.6	1
93	Rot-free mixed finite elements for gradient elasticity at finite strains. International Journal for Numerical Methods in Engineering, 2021, 122, 1602-1628.	1.5	1
94	Modeling of the Bayliss Effect in Vascular Smooth Muscles. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000273.	0.2	1
95	Efficient identification of material parameters based on experiments providing full field kinematics. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000168.	0.2	1
96	Towards a physiologically accurate ECG from numerical simulations: comparative analyses in a simplified tissue model. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000136.	0.2	1
97	MODELING OF LOW-ALLOYED TRIP-STEELS BASED ON DIRECT MICRO-MACRO SIMULATIONS. , 2016, , .		1
98	Robust Numerical Schemes for an Efficient Implementation of Tangent Matrices: Application to Hyperelasticity, Inelastic Standard Dissipative Materials and Thermo-Mechanics at Finite Strains. Lecture Notes in Applied and Computational Mechanics, 2016, , 1-23.	2.0	1
99	Analytical and Numerical Modelling of a Sub- and Supersonic Moving Load Front Along a Rod's Skin. Advanced Structured Materials, 2016, , 469-489.	0.3	1
100	Efficient Computation of the Sharpest Bounds on the Probability of Failure of a Sheet Metal Forming Process. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	1
101	Applicability of the lead field approach in virtual laboratory studies: comparison with full numerical simulations based on the bidomain model. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	1
102	Simulation of ductile crack propagation in metal matrix composites - Comparison with cyclic experiments. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	1
103	Continuum multiscale modeling of absorption processes in micro- and nanocatalysts. Archive of Applied Mechanics, 2022, 92, 2207-2223.	1.2	1
104	Large-scale simulation of arterial walls: mechanical modeling. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4020017-4020018.	0.2	0
105	Simulation of Two-Phase Steels based on Statistically Similar Representative Volume Elements. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 939-942.	0.2	0
106	Nano to Micro - Perspectives for Homogenization in Crystalline Solids. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 19-22.	0.2	0
107	A Biphasic Approach for the Simulation of Growth Processes in Soft Biological Tissues Incorporating Damage-Induced Stress Softening. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 91-92.	0.2	0
108	Relaxed Incremental Variational Formulation for Damage in Fiber-Reinforced Materials. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 157-158.	0.2	0

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109	Comparative Study of the Influence of Statistically Distributed Microscopic Quantities on the Damage in Collagenous Tissues. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 47-48.	0.2	0
110	Determination of Mechanical and Microstructural Tissue Quantities for Modeling Damage in Arterial Tissues. Biomedizinische Technik, 2013, 58 Suppl 1, .	0.9	0
111	Calculation of Optimal Bounds on the Probability of Failure of Soft Biological Tissues. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 93-94.	0.2	0
112	Comparison of Statistical Descriptors for the Construction of Statistically Similar RVEs. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 539-540.	0.2	0
113	Modeling advanced high-strength steels based on direct micro-macro calculations. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 587-588.	0.2	0
114	Relaxed incremental variational approach for damage in arteries. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 81-82.	0.2	0
115	Numerical Calculation of Fiber Orientation in Three-Dimensional Arterial Walls. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 91-92.	0.2	0
116	Study on statistically similar RVEs for real microstructures based on different statistical descriptors. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 467-468.	0.2	0
117	Modeling residual stresses in arterial walls based on anisotropic growth. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 115-116.	0.2	0
118	A computational two scaled model for the simulation of micro-heterogeneous low-alloyed TRIP steels. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 335-336.	0.2	0
119	Notes on a novel finite element for anisotropy at large strains. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 247-248.	0.2	0
120	Basic Ideas for the Quantification of Uncertainty Associated with the Material's Microstructure Morphology using Statistically Similar RVEs. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 431-432.	0.2	0
121	Ideas regarding a physically motivated selection of snapshots for POD calculations - a potential application to z-pin pullout?. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 483-484.	0.2	0
122	Steps Towards More Realistic FSI Simulations of Coronary Arteries. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 187-188.	0.2	0
123	Study of model variants in a combined framework for multiplicative growth and remodeling in arterial walls. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800080.	0.2	0
124	A Method to Quantify Material Parameter Uncertainties Resulting from Microstructure Variation based on Artificial Microstructures. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800394.	0.2	0
125	Remarks on Fluid-Structure Interaction Simulations in Realistic Arterial Geometries with regard to the Transmural Stress Distribution. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800312.	0.2	0
126	A Computational Two-Scale Model for the Simulation of Dual-Phase Steels under Cyclic Loading. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800321.	0.2	0

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127	Damage in Soft Biological Tissues. , 2018, , 1-15.		0
128	Simulation of Dual-Phase Steel Using the Finite Cell Method and Voxel-Based Microstructure Data. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900316.	0.2	0
129	Simulation of subcritical crack propagation in hard metal microstructures. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900233.	0.2	0
130	Inverse Identification of Material Properties of the Human Eye Using Optical Deformation Measurements. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000052.	0.2	0
131	Simulation of absorption processes in nanoparticle catalysts. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000076.	0.2	0
132	Influence of Micro-Inertia on the Macroscale -A Fully-Coupled Direct Homogenization Framework for Dynamics. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000195.	0.2	0
133	Extension of the eigerosion approach to ductile crack propagation at large strains and its application on hard metal microstructures. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000077.	0.2	0
134	Rot-free finite elements for gradient-enhanced formulations at finite strains. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000069.	0.2	0
135	Damage in Soft Biological Tissues. , 2020, , 562-576.		0
136	Unique identification of stiffness parameters for nonlinear, anisotropic textile fabrics based on full-field measurements on a single experiment. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0
137	Influence of Residual Stresses and Fiber Orientation on Smooth Muscle Contraction in Arterial Walls. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0
138	An enhanced algorithmic scheme for relaxed incremental variational damage formulations at finite strains. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0
139	An extended Hamilton functional for the thermodynamic topology optimization of hyperelastic structures. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0