Michael Kaliske

List of Publications by Citations

291 papers	3,470 citations	29 h-index	46 g-index
312 ext. papers	4,141 ext. citations	2.4 avg, IF	6.18 L-index

#	Paper	IF	Citations
291	Formulation and implementation of three-dimensional viscoelasticity at small and finite strains. *Computational Mechanics*, **1997**, 19, 228-239	4	211
290	An Extended Tube-Model for Rubber Elasticity: Statistical-Mechanical Theory and Finite Element Implementation. *Rubber Chemistry and Technology*, **1999**, 72, 602-632	1.7	170
289	A formulation of elasticity and viscoelasticity for fibre reinforced material at small and finite strains. *Computer Methods in Applied Mechanics and Engineering*, **2000**, 185, 225-243	5.7	102
288	Theoretical and numerical formulation of a molecular based constitutive tube-model of rubber elasticity. *Computational and Theoretical Polymer Science*, **1997**, 7, 227-241		83
287	Models for numerical failure analysis of wooden structures. *Engineering Structures*, **2009**, 31, 571-579	4.7	77
286	A phase-field crack model based on directional stress decomposition. *Computational Mechanics*, **2019**, 63, 1019-1046	4	64
285	Bergström-Boyce model for nonlinear finite rubber viscoelasticity: theoretical aspects and algorithmic treatment for the FE method. *Computational Mechanics*, **2009**, 44, 809-823	4	60
284	A fully implicit finite element method for bidomain models of cardiac electromechanics. *Computer Methods in Applied Mechanics and Engineering*, **2013**, 253, 323-336	5.7	56
283	A micro-continuum-mechanical material model for failure of rubber-like materials: Application to ageing-induced fracturing. *Journal of the Mechanics and Physics of Solids*, **2009**, 57, 1340-1356	5	55
282	Recurrent Neural Networks for Uncertain Time-Dependent Structural Behavior. *Computer-Aided Civil and Infrastructure Engineering*, **2010**, 25, 322-323	8.4	51
281	On damage modelling for elastic and viscoelastic materials at large strain. *Computers and Structures* , **2001**, 79, 2133-2141	4.5	50
280	Constitutive approach to rate-independent properties of filled elastomers. *International Journal of Solids and Structures*, **1998**, 35, 2057-2071	3.1	49
279	An efficient viscoelastic formulation for steady-state rolling structures. *Computational Mechanics*, **1998**, 22, 395-403	4	49
278	Thermo-mechanically coupled investigation of steady state rolling tires by numerical simulation and experiment. *International Journal of Non-Linear Mechanics*, **2015**, 68, 101-131	2.8	43
277	On the finite element implementation of rubber-like materials at finite strains. *Engineering Computations*, **1997**, 14, 216-232	1.4	41
276	Three-dimensional numerical analyses of load-bearing behavior and failure of multiple double-shear dowel-type connections in timber engineering. *Computers and Structures*, **2010**, 88, 165-177	4.5	40
275	Time-dependent cohesive zone modelling for discrete fracture simulation. *Engineering Fracture Mechanics*, **2010**, 77, 153-169	4.2	35

274	A gradient enhanced plasticity–damage microplane model for concrete. *Computational Mechanics*, **2018**, 62, 1239-1257	4	34
273	Material forces for inelastic models at large strains: application to fracture mechanics. *Computational Mechanics*, **2007**, 40, 1005-1013	4	34
272	Numerical characterisation of uncured elastomers by a neural network based approach. *Computers and Structures*, **2017**, 182, 504-525	4.5	33
271	Analysis of dynamical processes under consideration of polymorphic uncertainty. *Structural Safety*, **2015**, 52, 194-201	4.9	33
270	An implicit gradient formulation for microplane Drucker-Prager plasticity. *International Journal of Plasticity*, **2016**, 83, 252-272	7.6	33
269	Structural Analysis with Fuzzy Data and Neural Network Based Material Description. *Computer-Aided Civil and Infrastructure Engineering*, **2012**, 27, 640-654	8.4	33
268	Recurrent neural networks for fuzzy data. *Integrated Computer-Aided Engineering*, **2011**, 18, 265-280	5.2	32
267	Comparison of approaches to model viscoelasticity based on fractional time derivatives. *Computational Materials Science*, **2015**, 98, 287-296	3.2	31
266	Regularization of microplane damage models using an implicit gradient enhancement. *International Journal of Solids and Structures*, **2014**, 51, 3480-3489	3.1	31
265	Transient multi-F ick ian hygro-mechanical analysis of wood. *Computers and Structures*, **2018**, 197, 12-27	4.5	30
264	A thermomechanically coupled viscoelastic cohesive zone model at large deformation. *International Journal of Solids and Structures*, **2013**, 50, 4279-4291	3.1	29
263	An endochronic plasticity formulation for filled rubber. *International Journal of Solids and Structures* , **2010**, 47, 2371-2379	3.1	29
262	Crack propagation in pneumatic tires: Continuum mechanics and fracture mechanics approaches. *International Journal of Fatigue*, **2012**, 37, 69-78	5	28
261	Simulation of cracks in wood using a coupled material model for interface elements. *Holzforschung*, **2007**, 61, 382-389	2	28
260	A ductile phase-field model based on degrading the fracture toughness: Theory and implementation at small strain. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 366, 113068	5.7	28
259	A physically and geometrically nonlinear scaled-boundary-based finite element formulation for fracture in elastomers. *International Journal for Numerical Methods in Engineering*, **2014**, 99, 966-999	2.4	27
258	A fully implicit finite element method for bidomain models of cardiac electrophysiology. *Computer Methods in Biomechanics and Biomedical Engineering*, **2012**, 15, 645-56	2.1	27
257	Mechanical characterization of wood: An integrative approach ranging from nanoscale to structure. *Computers and Structures*, **2013**, 127, 53-67	4.5	27

256	The concept of representative crack elements for phase-field fracture: Anisotropic elasticity and thermo-elasticity. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 779-805	2.4	27
255	On the relation between phase-field crack approximation and gradient damage modelling. *Computational Mechanics*, **2017**, 59, 717-735	4	26
254	Locking Front Model for pull-out behaviour of PVA microfibre embedded in cementitious matrix. *Cement and Concrete Composites*, **2019**, 103, 318-330	8.6	26
253	An orthotropic viscoelastic material model for passive myocardium: theory and algorithmic treatment. *Computer Methods in Biomechanics and Biomedical Engineering*, **2015**, 18, 1160-1172	2.1	26
252	A constitutive model for finite deformation of amorphous polymers. *International Journal of Mechanical Sciences*, **2012**, 65, 48-63	5.5	26
251	Lifetime prediction using accelerated test data and neural networks. *Computers and Structures*, **2009**, 87, 1187-1194	4.5	26
250	Discrete crack path prediction by an adaptive cohesive crack model. *Engineering Fracture Mechanics*, **2010**, 77, 3541-3557	4.2	26
249	Damping characterization of unidirectional fibre reinforced polymer composites. *Composites Part B: Engineering*, **1995**, 5, 551-567		26
248	Zur dreidimensionalen Materialmodellierung von Fichtenholz mittels eines Mehrfl□chen-Plastizit□tsmodells. *European Journal of Wood and Wood Products*, **2006**, 64, 393-402	2.1	24
247	THERMO-MECHANICAL ANALYSIS OF CYCLICALLY LOADED PARTICLE-REINFORCED ELASTOMER COMPONENTS: EXPERIMENT AND FINITE ELEMENT SIMULATION. *Rubber Chemistry and Technology* , **2016**, 89, 154-176	1.7	23
246	A comparative study of the r-adaptive material force approach and the phase-field method in dynamic fracture. *International Journal of Fracture*, **2016**, 201, 97-118	2.3	23
245	A hybrid interface-element for the simulation of moisture-induced cracks in wood. *Engineering Fracture Mechanics*, **2013**, 102, 32-50	4.2	23
244	Solutions to problems with imprecise data□An engineering perspective to generalized uncertainty models. *Mechanical Systems and Signal Processing*, **2013**, 37, 105-120	7.8	23
243	Numerical simulation of the ductile failure of mechanically and moisture loaded wooden structures. *Computers and Structures*, **2011**, 89, 2460-2470	4.5	23
242	Peel process simulation of sealed polymeric film computational modelling of experimental results. *Engineering Computations*, **2007**, 24, 586-607	1.4	23
241	Fracture simulation of viscoelastic polymers by the phase-field method. *Computational Mechanics*, **2020**, 65, 293-309	4	23
240	Numerical modelling of tyre□pavement interaction phenomena: coupled structural investigations. *Road Materials and Pavement Design*, **2016**, 17, 563-578	2.6	22
239	Formulation and implementation of a constitutive model for semicrystalline polymers. *International Journal of Plasticity*, **2014**, 61, 128-156	7.6	22

238	Evaluation of energy contributions in elasto-plastic fracture: A review of the configurational force approach. *Engineering Fracture Mechanics*, **2014**, 115, 137-153	4.2	22
237	A fuzzy-probabilistic durability concept for strain-hardening cement-based composites (SHCCs) exposed to chlorides. *Cement and Concrete Composites*, **2012**, 34, 754-762	8.6	22
236	Thermo-mechanical finite element prediction of the structural long-term response of asphalt pavements subjected to periodic traffic load: Tire-pavement interaction and rutting. *Computers and Structures*, **2019**, 218, 9-31	4.5	21
235	Description of inhomogeneities in wooden structures: modelling of branches. *Wood Science and Technology*, **2013**, 47, 1051-1070	2.5	21
234	Investigations on the physical and mechanical behaviour of sycamore maple (Acer pseudoplatanus L.). *European Journal of Wood and Wood Products*, **2013**, 71, 91-99	2.1	21
233	Finite element analysis of timber containing branches – An approach to model the grain course and the influence on the structural behaviour. *Engineering Structures*, **2014**, 75, 237-247	4.7	21
232	Evaluation and simulation of the peel behavior of polyethylene/polybutene-1 peel systems. *Journal of Applied Polymer Science*, **2009**, 111, 363-370	2.9	21
231	A thermomechanical interface element formulation for finite deformations. *Computational Mechanics*, **2013**, 52, 1039-1058	4	20
230	Numerical simulation of pavement structures with inelastic material behaviour under rolling tyres based on an arbitrary Lagrangian Eulerian (ALE) formulation. *Road Materials and Pavement Design*, **2013**, 14, 71-89	2.6	20
229	Hygro-mechanically coupled modelling of creep in wooden structures, Part I: Mechanics. *International Journal of Solids and Structures*, **2015**, 77, 28-44	3.1	19
228	Static and dynamic tensile shear test of glued lap wooden joint with four different types of adhesives. *Holzforschung*, **2017**, 71, 391-396	2	18
227	Hygro-mechanically coupled modelling of creep in wooden structures, Part II: Influence of moisture content. *International Journal of Solids and Structures*, **2015**, 77, 45-64	3.1	18
226	A continuum mechanical approach to model asphalt. *International Journal of Pavement Engineering*, **2015**, 16, 105-124	2.6	18
225	Micro-sphere based viscoplastic constitutive model for uncured green rubber. *International Journal of Solids and Structures*, **2018**, 132-133, 201-217	3.1	18
224	Prediction of time-dependent structural behaviour with recurrent neural networks for fuzzy data. *Computers and Structures*, **2011**, 89, 1971-1981	4.5	18
223	A Material Model for Simulating the Hysteretic Behavior of Filled Rubber for Rolling Tires. *Tire Science and Technology*, **1998**, 26, 132-148	0.7	18
222	Numerical modelling of wooden structures. *Journal of Cultural Heritage*, **2017**, 27, S93-S102	2.9	17
221	A configurational force approach to model the branching phenomenon in dynamic brittle fracture. *Engineering Fracture Mechanics*, **2016**, 157, 26-42	4.2	17

220	Structural design with polymorphic uncertainty models. *International Journal of Reliability and Safety*, **2015**, 9, 112	0.9	17
219	A multi-objective optimization approach with consideration of fuzzy variables applied to structural tire design. *Computers and Structures*, **2013**, 116, 7-19	4.5	17
218	Characterisation of moisture-dependent plasticity of beech wood and its application to a multi-surface plasticity model. *Holzforschung*, **2012**, 66,	2	17
217	A Biomimetic Fish Fin-Like Robot Based on Textile Reinforced Silicone. *Micromachines*, **2020**, 11,	3.3	16
216	Computational cardiology: A modified Hill model to describe the electro-visco-elasticity of the myocardium. *Computer Methods in Applied Mechanics and Engineering*, **2017**, 315, 434-466	5.7	16
215	Experimental Characterization and Constitutive Modeling of the Mechanical Properties of Uncured Rubber. *Rubber Chemistry and Technology*, **2010**, 83, 1-15	1.7	16
214	Formulation and implementation of strain rate-dependent fracture toughness in context of the phase-field method. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 233-255	2.4	16
213	Hygro-mechanical numerical investigations of a wooden panel painting from Katharinenaltar by Lucas Cranach the Elder. *Journal of Cultural Heritage*, **2018**, 29, 1-9	2.9	15
212	Stochastic modelling of uncertainty in timber engineering. *Engineering Structures*, **2015**, 99, 296-310	4.7	15
211	A material description based on recurrent neural networks for fuzzy data and its application within the finite element method. *Computers and Structures*, **2013**, 124, 29-37	4.5	14
210	Holistic Analysis of the Coupled Vehicle-Tire-Pavement System for the Design of Durable Pavements. *Tire Science and Technology*, **2015**, 43, 86-116	0.7	14
209	DNN2: A hyper-parameter reinforcement learning game for self-design of neural network based elasto-plastic constitutive descriptions. *Computers and Structures*, **2021**, 249, 106505	4.5	14
208	Numerical modeling of inelastic structures at loading of steady state rolling. *Computational Mechanics*, **2016**, 57, 867-886	4	14
207	A thermomechanical interface description and its application to yarn pullout tests. *International Journal of Solids and Structures*, **2015**, 69-70, 531-543	3.1	13
206	An anisotropic phase-field model based on the equivalent crack surface energy density at finite strain. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 369, 113202	5.7	13
205	Numerical modeling of thermal aging in steady state rolling tires. *International Journal of Non-Linear Mechanics*, **2018**, 103, 145-153	2.8	13
204	Numerical analysis and design of double-shear dowel-type connections of wood. *Engineering Structures*, **2012**, 41, 234-241	4.7	13
203	Eigenerosion for static and dynamic brittle fracture. *Engineering Fracture Mechanics*, **2017**, 182, 537-551	4.2	13

202	A comparative study of micro-mechanical models for fiber pullout behavior of reinforced high performance concrete. *Engineering Fracture Mechanics*, **2021**, 243, 107506	4.2	13
201	Numerical modeling of time- and temperature-dependent strain-induced crystallization in rubber. *International Journal of Solids and Structures*, **2018**, 141-142, 15-34	3.1	12
200	An implicit adaptive node-splitting algorithm to assess the failure mechanism of inelastic elastomeric continua. *International Journal for Numerical Methods in Engineering*, **2014**, 100, 669-688	2.4	12
199	Fatigue Investigation of Elastomeric Structures. *Tire Science and Technology*, **2010**, 38, 194-212	0.7	12
198	Numerical determination of hysteresis friction on different length scales and comparison to experiments. *Tribology International*, **2018**, 127, 165-176	4.9	12
197	Numerical optimization of wear performance Utilizing a metamodel based friction law. *Computers and Structures*, **2016**, 165, 10-23	4.5	11
196	VISCOELASTIC LINEAR AND NONLINEAR ANALYSIS OF STEADY STATE ROLLING RUBBER WHEELS: A COMPARISON. *Rubber Chemistry and Technology*, **2016**, 89, 499-525	1.7	10
195	Modeling of impact on concrete plates by use of the microplane approach. *International Journal of Non-Linear Mechanics*, **2016**, 80, 107-121	2.8	10
194	Estimating shear properties of walnut wood: a combined experimental and theoretical approach. *Materials and Structures/Materiaux Et Constructions*, **2017**, 50, 1	3.4	10
193	Numerical modelling of tyre pavement-interaction phenomena: constitutive description of asphalt behaviour based on triaxial material tests. *Road Materials and Pavement Design*, **2015**, 16, 133-153	2.6	10
192	Computational approach towards structural investigations for the restoration of historical keyboard instruments. *Journal of Cultural Heritage*, **2012**, 13, S165-S174	2.9	10
191	Coupling of microstructural and macrostructural computational approaches for asphalt pavements under rolling tire load. *Computer-Aided Civil and Infrastructure Engineering*, **2020**, 35, 1178-1193	8.4	10
190	Dynamische Eigenschaften von Beton im Experiment und in der Simulation. *Beton- Und Stahlbetonbau*, **2016**, 111, 41-50	1	10
189	Enhanced uncertain structural analysis with time- and spatial-dependent (functional) fuzzy results. *Mechanical Systems and Signal Processing*, **2019**, 119, 23-38	7.8	10
188	A thermodynamically consistent framework to couple damage and plasticity microplane-based formulations for fracture modeling: development and algorithmic treatment. *International Journal of Fracture*, **2017**, 203, 115-134	2.3	9
187	A viscoelastic-viscoplastic-damage model for creep and recovery of a semicrystalline thermoplastic. *International Journal of Solids and Structures*, **2017**, 110-111, 340-350	3.1	9
186	A novel approach to computational homogenization and its application to fully coupled two-scale thermomechanics. *Computational Mechanics*, **2016**, 58, 769-796	4	9
185	Analysis of stable crack propagation in filled rubber based on a global energy balance. *International Journal of Fracture*, **2013**, 181, 13-23	2.3	9

184	PREDICTION OF ROLLING RESISTANCE FOR TRUCK BUS RADIAL TIRES WITH NANOCOMPOSITE BASED TREAD COMPOUNDS USING FINITE ELEMENT SIMULATION. *Rubber Chemistry and Technology*, **2014**, 87, 276-290	1.7	9
183	An extended tube model for thermo-viscoelasticity of rubber like materials **2011**, 87-92		9
182	Fracture mechanical behaviour of visco-elastic materials: application to the so-called dwell-effect. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2009**, 89, 677-686	1	9
181	Modeling of Surface Drainage during the Service Life of Asphalt Pavements Showing Long-Term Rutting: A Modular Hydromechanical Approach. *Advances in Materials Science and Engineering*, **2020** , 2020, 1-15	1.5	9
180	Viscoelastic phase-field fracture using the framework of representative crack elements. *International Journal of Fracture*,1	2.3	9
179	A hierarchical sequential ALE poromechanics model for tire-soil-water interaction on fluid-infiltrated roads. *International Journal for Numerical Methods in Engineering*, **2017**, 112, 909-938	2.4	8
178	Characterization of fracture processes by continuum and discrete modelling. *Computational Mechanics*, **2012**, 50, 303-320	4	8
177	Modelling of microstructural void evolution with configurational forces. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2009**, 89, 698-708	1	8
176	Multiscale Simulation to Determine Rubber Friction on Asphalt Surfaces. *Tire Science and Technology*, **2016**, 44, 226-247	0.7	8
175	Finite Element Based Analysis of Reinforcing Cords in Rolling Tires: Influence of Mechanical and Thermal Cord Properties on Tire Response. *Tire Science and Technology*, **2018**, 46, 294-327	0.7	8
174	A thermo-mechanical finite element material model for the rubber forming and vulcanization process: From unvulcanized to vulcanized rubber. *International Journal of Solids and Structures*, **2020**, 185-186, 365-379	3.1	8
173	Assessment and design of an engineering structure with polymorphic uncertainty quantification. *GAMM Mitteilungen*, **2019**, 42, e201900009	1.8	7
172	Circumventing mesh bias by r- and h-adaptive techniques for variational eigenfracture. *International Journal of Fracture*, **2019**, 220, 129	2.3	7
171	Numerical simulation of wooden structures with polymorphic uncertainty in material properties. *International Journal of Reliability and Safety*, **2018**, 12, 24	0.9	7
170	Complex step derivative approximation of consistent tangent operators for viscoelasticity based on fractional calculus. *Computational Mechanics*, **2015**, 56, 1055-1071	4	7
169	Numerical simulation of coupled heat and mass transfer in wood dried at high temperature. *Heat and Mass Transfer*, **2011**, 47, 351-358	2.2	7
168	An extended tube model for thermo-viscoelasticity of rubberlike materials: Parameter identification and examples. *Proceedings in Applied Mathematics and Mechanics*, **2011**, 11, 353-354	0.2	7
167	Variational eigenerosion for rate-dependent plasticity in concrete modeling at small strain. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 1388-1409	2.4	7

166	Finite thermo-elastic decoupled two-scale analysis. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 355-392	2.4	7
165	Finite element modeling of electro-viscoelasticity in fiber reinforced electro-active polymers. *International Journal for Numerical Methods in Engineering*, **2021**, 122, 2005-2037	2.4	7
164	Development of fuzzy probability based random fields for the numerical structural design. *GAMM Mitteilungen*, **2019**, 42, e201900004	1.8	6
163	Modelling of fibre-reinforced composites via fibre super-elements. *Theoretical and Applied Fracture Mechanics*, **2019**, 103, 102294	3.7	6
162	Macroscopical Modeling and Numerical Simulation for the Characterization of Crack and Durability Properties of Particle-Reinforced Elastomers. *Lecture Notes in Applied and Computational Mechanics* , **2013**, 167-226	0.3	6
161	Fully Coupled Cardiac Electromechanics with Orthotropic Viscoelastic Effects. *Procedia IUTAM*, **2015**, 12, 124-133		6
160	Inelastic Fracture Mechanics for Tire Durability Simulations4. *Tire Science and Technology*, **2007**, 35, 239-250	0.7	6
159	The Extended Non-affine Tube Model for Crosslinked Polymer Networks: Physical Basics, Implementation, and Application to Thermomechanical Finite Element Analyses. *Advances in Polymer Science*, **2016**, 1-70	1.3	6
158	Numerical investigation of inelastic and temperature dependent layered asphalt pavements at loading by rolling tyres. *International Journal of Pavement Engineering*, **2021**, 22, 97-117	2.6	6
157	Computational cardiology: the bidomain based modified Hill model incorporating viscous effects for cardiac defibrillation. *Computational Mechanics*, **2018**, 62, 253-271	4	6
156	A coupled approach of optimization, uncertainty analysis and configurational mechanics for a fail-safe design of structures. *International Journal for Numerical Methods in Engineering*, **2017**, 109, 125-152	2.4	5
155	A thermo-mechanical material model for rubber curing and tire manufacturing simulation. *Computational Mechanics*, **2020**, 66, 513-535	4	5
154	On configurational forces in hyperelastic materials under shock and impact. *Computational Mechanics*, **2011**, 47, 93-104	4	5
153	The concept of Representative Crack Elements (RCE) for phase-field fracture: transient thermo-mechanics. *Computational Mechanics*,1	4	5
152	Lifetime Prediction of Tires with Regard to Oxidative Aging5. *Tire Science and Technology*, **2008**, 36, 63-79	0.7	5
151	Optimized and Robust Design of Tires Based on Numerical Simulation. *Tire Science and Technology*, **2013**, 41, 21-39	0.7	5
150	A Consistent Implementation of Inelastic Material Models into Steady State Rolling. *Tire Science and Technology*, **2016**, 44, 174-190	0.7	5
149	On the computational modelling of nonlinear electro-elasticity in heterogeneous bodies at finite deformations. *Mechanics of Soft Materials*, **2021**, 3, 1	2.1	5

148	Hygro-mechanical investigations of clavichord replica at cyclic climate load: Experiments and simulations. *Journal of Cultural Heritage*, **2019**, 36, 210-221	2.9	5
147	A continuum mechanical model for asphalt based on the particle size distribution: Numerical formulation for large deformations and experimental validation. *Mechanics of Materials*, **2021**, 153, 103703	3.3	5
146	A numerical study on the effects of spatial and temporal discretization in cardiac electrophysiology. *International Journal for Numerical Methods in Biomedical Engineering*, **2021**, 37, e3443	2.6	5
145	Simulation of failure in timber with structural inhomogeneities using an automated FE analysis. *Computers and Structures*, **2018**, 207, 19-36	4.5	5
144	Hygro-mechanical analysis of wood-adhesive joints. *Engineering Structures*, **2019**, 193, 258-270	4.7	4
143	Finite strain extension of a gradient enhanced microplane damage model for concrete at static and dynamic loading. *Engineering Fracture Mechanics*, **2019**, 216, 106501	4.2	4
142	Understanding fracture of a carbon black filled rubber compound using material force theory. *Theoretical and Applied Fracture Mechanics*, **2020**, 108, 102649	3.7	4
141	Homogenisation by cylindrical RVEs with twisted-periodic boundary conditions for hybrid-yarn reinforced elastomers. *International Journal of Solids and Structures*, **2018**, 139-140, 283-301	3.1	4
140	A consistent viscoelastic formulation for the numerical analysis of steady state rolling tires. *International Journal of Plasticity*, **2018**, 101, 24-41	7.6	4
139	Phase-field fracture incorporating cohesive adhesion failure mechanisms within the Representative Crack Element framework. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 392, 114664	5.7	4
138	Computational Models for Wooden Structures. *Computational Technology Reviews*, **2010**, 2, 145-176		4
137	An orthotropic multi-surface damage-plasticity FE-formulation for wood: Part I Constitutive model. *Computers and Structures*, **2020**, 240, 106350	4.5	4
136	Towards predictive computer simulations in cardiology: Finite element analysis of personalized heart models. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2018**, 98, 2155-2176	1	4
135	An XFEM-approach to model brittle failure of wood. *Engineering Structures*, **2020**, 212, 110236	4.7	3
134	Theoretical-numerical Approaches to Simulate Fracture in Polymeric Materials **2014**, 3, 2065-2070		3
133	Thermoplastics under Long-Term Loading: Experiments and Viscoelastic-Viscoplastic Modeling. *Proceedings in Applied Mathematics and Mechanics*, **2015**, 15, 375-376	0.2	3
132	Computation of energy dissipation in visco-elastic materials at finite deformation. *Proceedings in Applied Mathematics and Mechanics*, **2013**, 13, 159-160	0.2	3
131	A three-field, bi-domain based approach to the strongly coupled electromechanics of the heart. *Proceedings in Applied Mathematics and Mechanics*, **2011**, 11, 931-934	0.2	3

130	An Approach to the Modeling of Physical Ageing in Rubbery Polymers. *Proceedings in Applied Mathematics and Mechanics*, **2006**, 6, 363-364	0.2	3
129	Neural Network Approaches in Structural Analysis considering Imprecision and Variability. *Computational Science, Engineering and Technology Series*,59-85		3
128	Evaluation of Crack-Driving Forces at Finite Viscoelasticity: Theory and Experiment. *IUTAM Symposium on Cellular, Molecular and Tissue Mechanics*, **2009**, 193-202	0.3	3
127	An anisotropic damage formulation for composite materials based on a gradient-enhanced approach: Formulation and implementation at small strain. *International Journal of Solids and Structures*, **2020**, 202, 631-645	3.1	3
126	Robustness versus Performance Nested Inherence of Objectives in Optimization with Polymorphic Uncertain Parameters. *Advances in Engineering Software*, **2021**, 156, 102932	3.6	3
125	Thermomechanical modeling of fiber reinforced material including interphasial properties and its application to epoxy/glass composites. *Engineering Computations*, **2016**, 33, 1259-1281	1.4	3
124	Numerical representation of fracture patterns and post-fracture load-bearing performance of thermally prestressed glass with polymer foil. *Engineering Structures*, **2021**, 226, 111318	4.7	3
123	Numerical modelling of electro-viscoelasticity for fibre reinforced electro-active polymers. *Proceedings in Applied Mathematics and Mechanics*, **2021**, 20, e202000118	0.2	3
122	Characterization of fatigue crack growth by cyclic material forces. *Engineering Fracture Mechanics*, **2021**, 243, 107514	4.2	3
121	Moisture-dependent thermo-mechanical constitutive modeling of wood. *Engineering Computations*, **2018**, 36, 2-24	1.4	3
120	Thermo-Electro-Mechanical Characterization of PDMS-Based Dielectric Elastomer Actuators.. *Materials*, **2021**, 15,	3.5	3
119	Modeling of a Concrete Dam under Earthquake Loading by a Nonlocal Microplane Approach. *Procedia Engineering*, **2017**, 171, 1010-1018		2
118	Hygro- and Thermo-Mechanical Modeling of Wood at Large Deformations: Application to Densification and Forming of Wooden Structures. *Advanced Structured Materials*, **2018**, 59-97	0.6	2
117	A novel method for constitutive characterization of the mechanical properties of uncured rubber. *Journal of Elastomers and Plastics*, **2016**, 48, 523-534	1.6	2
116	Advanced Rebar Formulation within a Thermo-Mechanically Coupled Tire Simulation. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 289-290	0.2	2
115	Thermo-mechanical modeling of crack propagation in dynamically loaded elastomer specimens using a scaled boundary finite element approach. *Proceedings in Applied Mathematics and Mechanics* , **2015**, 15, 121-122	0.2	2
114	A model reduction approach for hyperelastic materials based on Proper Orthogonal Decomposition. *Proceedings in Applied Mathematics and Mechanics*, **2015**, 15, 203-204	0.2	2
113	A Note on Homogenization of Ordinary Differential Equations with Delay Term. *Proceedings in Applied Mathematics and Mechanics*, **2011**, 11, 889-890	0.2	2

112	Modelling of growth inhomogeneities in timber structures for realistic computations. *Proceedings in Applied Mathematics and Mechanics*, **2010**, 10, 711-712	0.2	2
111	Formulation of the Material Force Approach for Finite Inelasticity. *Proceedings in Applied Mathematics and Mechanics*, **2006**, 6, 183-184	0.2	2
110	Anisotropic moisture depending viscoelastic material model for wood. *Proceedings in Applied Mathematics and Mechanics*, **2004**, 4, 205-206	0.2	2
109	Material forces in continuum damage material. *Proceedings in Applied Mathematics and Mechanics*, **2004**, 4, 290-291	0.2	2
108	An experimental and numerical study on the age depended bond-slip behavior between nano-silica modified carbon fibers and cementitious matrices. *Cement and Concrete Composites*, **2022**, 128, 104416	8.6	2
107	Modeling and Processing of Uncertainty in Civil Engineering by Means of Fuzzy Randomness. *Lecture Notes in Economics and Mathematical Systems*, **2012**, 291-306	0.4	2
106	Numerical Mesoscale Analysis of Textile Reinforced Concrete. *Materials*, **2020**, 13,	3.5	2
105	A nonlocal softening plasticity based on microplane theory for concrete at finite strains. *Computers and Structures*, **2020**, 241, 106333	4.5	2
104	An orthotropic multi-surface damage-plasticity FE-formulation for wood: Part II – Numerical applications. *Computers and Structures*, **2020**, 240, 106351	4.5	2
103	Fracture and Fatigue Failure Simulation of Polymeric Material at Finite Deformation by the Phase-Field Method and the Material Force Approach. *Advances in Polymer Science*, **2020**, 347-376	1.3	2
102	ALE formulation for thermomechanical inelastic material models applied to tire forming and curing simulations. *Computational Mechanics*, **2021**, 67, 1543-1557	4	2
101	The Icon Last Supper of the Iconostasis of the Russian Memorial Church in Leipzig: Technological Investigation as Basis for the Modelling and the Numerical Simulation of Historical Works of Art. *Studies in Conservation*,1-18	0.6	2
100	Heat-transfer and pressure drop characteristics of micro-lattice materials fabricated by selective laser metal melting technology. *Heat and Mass Transfer*,1	2.2	2
99	Microplane modeling of cyclic behavior of concrete: a gradient plasticity-damage formulation. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 415-416	0.2	2
98	Viscoelastic-viscoplastic-damage modeling of thermoplastics under long-term cyclic loading. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 413-414	0.2	2
97	Embedding aircraft system modeling to ATM safety assessment techniques. *Transportation Research Interdisciplinary Perspectives*, **2019**, 3, 100026	7.3	2
96	On the analysis of crack-closure behaviour using the phase-field method together with the novel concept of Representative Crack Elements. *Proceedings in Applied Mathematics and Mechanics*, **2019**, 19, e201900314	0.2	2
95	Polymorphic Uncertainty Modeling for Optimization of Timber Structures. *Proceedings in Applied Mathematics and Mechanics*, **2018**, 18, e201800426	0.2	2

94	Artificial Neural Networks Based Friction Law for Elastomeric Materials Applied in Finite Element Sliding Contact Simulations. *Complexity*, **2018**, 2018, 1-15	1.6	2
93	Square block foundation resting on an unbounded soil layer: Long-term prediction of vertical displacement using a time homogenization technique for dynamic loading. *Soil Dynamics and Earthquake Engineering*, **2018**, 115, 448-471	3.5	2
92	Increasing the Fatigue Resistance of Strain-Hardening Cement-Based Composites (SHCC) by Experimental-Virtual Multi-Scale Material Design. *Materials*, **2021**, 14,	3.5	2
91	The concept of representative crack elements applied to eigenfracture. *Mechanics Research Communications*, **2021**, 116, 103747	2.2	2
90	A novel self-adversarial training scheme for enhanced robustness of inelastic constitutive descriptions by neural networks. *Computers and Structures*, **2022**, 265, 106774	4.5	2
89	An anisotropic phase-field approach accounting for mixed fracture modes in wood structures within the Representative Crack Element framework. *Engineering Fracture Mechanics*, **2022**, 269, 108514	4.2	2
88	Modeling of structures with polymorphic uncertainties at different length scales. *GAMM Mitteilungen*, **2019**, 42, e201900006	1.8	1
87	Investigation of cord-rubber composite durability by the material force method. *Engineering Fracture Mechanics*, **2020**, 229, 106909	4.2	1
86	Extension of the scaled boundary finite element method to geometrical and physical nonlinearity. *Proceedings in Applied Mathematics and Mechanics*, **2014**, 14, 263-264	0.2	1
85	An iterative method to solve the heat transfer problem under the non-linear boundary conditions. *Heat and Mass Transfer*, **2012**, 48, 283-290	2.2	1
84	Identification of Pareto-fronts in the presence of epistemic uncertainty. *Proceedings in Applied Mathematics and Mechanics*, **2013**, 13, 397-398	0.2	1
83	Computation of material forces for the thermo-mechanical response of dynamically loaded elastomers. *Proceedings in Applied Mathematics and Mechanics*, **2012**, 12, 299-300	0.2	1
82	FE Analysis using Recurrent Neural Networks for Uncertain Stress-Strain-Time Dependencies. *Proceedings in Applied Mathematics and Mechanics*, **2011**, 11, 211-212	0.2	1
81	Modelling of material and structural inhomogeneities in timber structures. *Proceedings in Applied Mathematics and Mechanics*, **2011**, 11, 231-232	0.2	1
80	Transient Simulation of Coupled Heat, Moisture and Air Distribution in Wood during Drying **2009**, 613-618		1
79	An Adaptive Finite Element Approach for Brittle Fracture. *Proceedings in Applied Mathematics and Mechanics*, **2006**, 6, 163-164	0.2	1
78	An Approach for Micromechanical Modelling of Damage Mechanisms. *Proceedings in Applied Mathematics and Mechanics*, **2006**, 6, 199-200	0.2	1
77	Formulation of the material force approach for elastic and inelastic materials. *Proceedings in Applied Mathematics and Mechanics*, **2005**, 5, 353-354	0.2	1

76	Application of Material Forces to Hyperelastodynamics. *Proceedings in Applied Mathematics and Mechanics*, **2005**, 5, 367-368	0.2	1
75	Thermo-Electro-Mechanical Simulation of Electro-Active Composites.. *Materials*, **2022**, 15,	3.5	1
74	Fatigue fracture characterization by cyclic material forces in viscoelastic solids at small strain. *International Journal of Fracture*, **2022**, 233, 129	2.3	1
73	Modelling of uncertainties of timber structures due to growth inhomogeneities **2011**, 1353-1361		1
72	Isogeometric analysis for accurate modeling of rolling tires. *Computers and Structures*, **2022**, 260, 106717	4.5	1
71	Experimental and Numerical Investigation of Tire Tread Wear on Block Level. *Lubricants*, **2021**, 9, 113	3.1	1
70	A temperature dependent constitutive model for functional fatigue in shape memory alloys. *Mechanics of Materials*, **2021**, 165, 104126	3.3	1
69	A comparative study of fully implicit staggered and monolithic solution methods. Part I: Coupled bidomain equations of cardiac electrophysiology. *Journal of Computational and Applied Mathematics*, **2022**, 407, 114021	2.4	1
68	Isogeometric Analysis for Tire Simulation at Steady-State Rolling. *Tire Science and Technology*, **2019**, 47, 174-195	0.7	1
67	IN SITU MEASUREMENT OF TIRE PLY STEER BASED ON AN INTELLIGENT TIRE SYSTEM. *Rubber Chemistry and Technology*, **2021**, 94, 180-199	1.7	1
66	Modelling of Ductile Fracture of Strain-hardening Cement-based Composites - Novel Approaches Based on Microplane and Phase-field Method. *Advanced Structured Materials*, **2020**, 175-199	0.6	1
65	Multiscale simulation for description of rubber friction. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 539-540	0.2	1
64	Application of Recurrent Neural Networks in the numerical analysis of reinforced concrete structures considering polymorphic uncertainty. *Proceedings in Applied Mathematics and Mechanics*, **2019**, 19, e201900404	0.2	1
63	Impaktsicherheit von Baukonstruktionen durch mineralisch gebundene Komposite: Bauteilebene. *Beton- Und Stahlbetonbau*, **2021**, 116, 58-67	1	1
62	An anisotropic phase-field model at finite strains for composite fracture. *Proceedings in Applied Mathematics and Mechanics*, **2021**, 20, e202000096	0.2	1
61	A simple phenomenological approach for myocardial contraction: formulation, parameter sensitivity study and applications in organ level simulations. *Mechanics of Soft Materials*, **2021**, 3, 1	2.1	1
60	Efficient Utilization of Surrogate Models for Uncertainty Quantification. *Proceedings in Applied Mathematics and Mechanics*, **2021**, 20, e202000210	0.2	1
59	Local Refinement in Isogeometric Analysis of Complex Tire Models. *Proceedings in Applied Mathematics and Mechanics*, **2021**, 20, e202000147	0.2	1

58	Impaktsicherheit von Baukonstruktionen durch mineralisch gebundene Komposite: Materialebene. *Beton- Und Stahlbetonbau*, **2021**, 116, 45-57	1	1
57	Discrete Description of Crack Kinematics in Regularized Free Discontinuities of Crack Faces. *Advanced Structured Materials*, **2022**, 271-310	0.6	1
56	Modeling thermal shrinkage of tire cords and its application in FE analysis of Post Cure Inflation. *Finite Elements in Analysis and Design*, **2022**, 205, 103757	2.2	1
55	Simulation-based development of adaptive fiber-elastomer composites with embedded shape memory alloys. *Journal of Industrial Textiles*, **2018**, 48, 322-332	1.6	0
54	A combined approach of considering uncertainty in optimization tasks to efficiently identify robust designs. *Proceedings in Applied Mathematics and Mechanics*, **2012**, 12, 807-810	0.2	0
53	Micromechanical modelling and two-scale simulation of epoxy/glass composites with interphases and interfaces. *Proceedings in Applied Mathematics and Mechanics*, **2010**, 10, 407-408	0.2	0
52	Incorporation of gradient-enhanced microplane damage model into isogeometric analysis. *Engineering Computations*, **2021**, 38, 3388-3415	1.4	0
51	Rate-dependent fracture simulation of viscoelastic material by the phase-field method. *Proceedings in Applied Mathematics and Mechanics*, **2019**, 19, e201900335	0.2	0
50	Phase-field Fracture with Representative Crack Elements for Non-linear Material Behaviour. *Proceedings in Applied Mathematics and Mechanics*, **2021**, 20, e202000207	0.2	0
49	Crack phase-field model equipped with plastic driving force and degrading fracture toughness for ductile fracture simulation. *Computational Mechanics*,1	4	0
48	An Arbitrary Lagrangian Eulerian formulation for tire production simulation. *Finite Elements in Analysis and Design*, **2022**, 204, 103742	2.2	0
47	Zur Fortentwicklung des Microplane-Modells f□ die numerische Analyse von Betonstrukturen. *Bautechnik*, **2019**, 96, 415-423	0.5	
46	Polymorphic uncertainty modelling for numerical design of structures. *GAMM Mitteilungen*, **2019**, 42, e201900003	1.8	
45	Reliable simulation of timber structures by combined load and displacement control. *Engineering Computations*, **2015**, 32, 766-778	1.4	
44	Advances in computational dynamics for inelastic continua with anisotropic material behavior: Formulation and numerical implementation of inelastic ductile behavior of spruce wood. *International Journal of Solids and Structures*, **2020**, 198, 41-56	3.1	
43	Crack propagation for the material force approach using adaptive meshing. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 161-162	0.2	
42	A consistent implementation for inelastic materials in an ALE formulation for steady state rolling contact. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 337-338	0.2	
41	Computational modeling of cardiac tissue with strongly coupled electromechanics and orthotropic viscoelastic effects. *Proceedings in Applied Mathematics and Mechanics*, **2014**, 14, 119-120	0.2	

40	On the gradient enhancement of microplane damage models. *Proceedings in Applied Mathematics and Mechanics*, **2014**, 14, 155-156	0.2
39	Boundary value driven approach to computational homogenization. *Proceedings in Applied Mathematics and Mechanics*, **2014**, 14, 557-558	0.2
38	Thermomechanical Analysis Strategies for Elastomer Components Under Dynamic Loading. *Springer Series in Materials Science*, **2017**, 507-516	0.9
37	Determination of the Elastic Behaviour of Hybrid-yarn Reinforced Elastomers using Twisted-periodic Boundary Conditions. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 467-468	0.2
36	Crack Detection in Experimental Data by Means of a Spiking Response Model. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 847-848	0.2
35	Multiscale Rubber Friction Analysis on Rough and Flexible Surfaces. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 593-594	0.2
34	Thermo-mechanical computation of inelastic pavement structures under rolling tire loads. *Proceedings in Applied Mathematics and Mechanics*, **2015**, 15, 439-440	0.2
33	Steady state rolling simulation for rubber with inelastic properties **2015**, 107-113	
32	Numerical aspects on computational homogenization of epoxy/glass composites. *Proceedings in Applied Mathematics and Mechanics*, **2012**, 12, 425-426	0.2
31	Solution of inverse problems to detect permissible design spaces. *Proceedings in Applied Mathematics and Mechanics*, **2011**, 11, 731-732	0.2
30	A structural optimization approach for passanger car tires with consideration of uncertainties. *Proceedings in Applied Mathematics and Mechanics*, **2011**, 11, 735-736	0.2
29	Fracture Mechanical Investigation of Elastomeric Material. *Proceedings in Applied Mathematics and Mechanics*, **2009**, 9, 195-196	0.2
28	Formulation and Application of the Initially Rigid Cohesive Finite Element Method. *Proceedings in Applied Mathematics and Mechanics*, **2009**, 9, 197-198	0.2
27	Time-dependent reliability assessment of structures using uncertain fractional rheological models. *Proceedings in Applied Mathematics and Mechanics*, **2009**, 9, 225-226	0.2
26	Prediction of Time-Dependent Structural Responses with Recurrent Neural Networks. *Proceedings in Applied Mathematics and Mechanics*, **2010**, 10, 155-156	0.2
25	Thermoviscoelasticity of fibre reinforced rubbery polymers. *Proceedings in Applied Mathematics and Mechanics*, **2010**, 10, 287-288	0.2
24	Fracture mechanical behaviour of visco-elastic materials. *Proceedings in Applied Mathematics and Mechanics*, **2007**, 7, 1090103-1090104	0.2
23	Multiscale damage simulation. *Proceedings in Applied Mathematics and Mechanics*, **2007**, 7, 1090107-1090108	0.2

22	Fracture Mechanics of Rubber Material. *Proceedings in Applied Mathematics and Mechanics*, **2008**, 8, 10227-10228	0.2
21	A micro-macro approach to the failure of rubber-like materials. *Proceedings in Applied Mathematics and Mechanics*, **2008**, 8, 10413-10414	0.2
20	A cohesive element approach for viscoelastic interface properties. *Proceedings in Applied Mathematics and Mechanics*, **2004**, 4, 187-188	0.2
19	Numerische Rissabbildung mit einem Phasenfeldmodell auf Basis einer rissrichtungsabhängigen Zerlegung des Spannungstensors **2018**, 77-79	
18	Holistic simulation of tire-pavement-system: Mechanics and uncertainty **2018**, 261-264	
17	Hygro-mechanical Modelling of Wood and Glutin-based Bond Lines of Wooden Cultural Heritage Objects. *Conference Proceedings of the Society for Experimental Mechanics*, **2020**, 273-276	0.3
16	Constitutive model and structural representation of time- and temperature-dependent strain-induced crystallization in rubber **2019**, 42-47	
15	Multiscale and multiphysical tire-pavement analysis: A mesostructure inspired material model for the short- and long-term material behavior of asphalt **2020**, 315-319	
14	Influence of nonlinear viscoelasticity for steady state rolling **2017**, 509-515	
13	Steady state and sequentially coupled thermo-mechanical simulation of rolling tires **2017**, 617-623	
12	Neue numerische Simulation für alte Holzkonstruktionen. *Bautechnik*, **2020**, 97, 708-716	0.5
11	Multi-scale Computational Approaches for Asphalt Pavements Under Rolling Tire Load. *Lecture Notes in Applied and Computational Mechanics*, **2021**, 247-266	0.3
10	Simulation Chain: From the Material Behavior to the Thermo-Mechanical Long-Term Response of Asphalt Pavements and the Alteration of Functional Properties (Surface Drainage). *Lecture Notes in Applied and Computational Mechanics*, **2021**, 267-289	0.3
9	Multi-physical and Multi-scale Theoretical-Numerical Modeling of Tire-Pavement Interaction. *Lecture Notes in Applied and Computational Mechanics*, **2021**, 1-39	0.3
8	Modeling of a Reinforced Concrete Column Under Cyclic Shear Loads by a Plasticity-Damage Microplane Formulation. *Sustainable Civil Infrastructures*, **2021**, 13-21	0.2
7	Objective modeling of multixial softening of concrete. *Proceedings in Applied Mathematics and Mechanics*, **2018**, 18, e201800293	0.2
6	Mesh Bias for the Eigenerosion Approach. *Proceedings in Applied Mathematics and Mechanics*, **2018**, 18, e201800414	0.2
5	A consistent multi-scale derivation of a micro-plane model within the framework of RVE homogenisation. *Proceedings in Applied Mathematics and Mechanics*, **2018**, 18, e201800364	0.2

4	A Novel Approach to Phasefield-Fracture for Inelastic Materials and Finite Deformations **2022**, 507-515	
3	Balancing conduction velocity error in cardiac electrophysiology using a modified quadrature approach.. *International Journal for Numerical Methods in Biomedical Engineering*, **2022**, e3589	2.6
2	Computational modelling of mechano-electric feedback and its arrhythmogenic effects in human ventricular models.. *Computer Methods in Biomechanics and Biomedical Engineering*, **2022**, 1-17	2.1
1	Computational material stability analysis in finite thermo-electro-mechanics. *Mechanics Research Communications*, **2022**, 121, 103867	2.2