GÃ¼nther Meschke

List of Publications by Year
in descending order

177 papers	3,927 citations	117571 34 h-index	143943 57 g-index
201 all docs	201 docs citations	201 times ranked	2576 citing authors

#	Article	IF	Citations
1	Numerical Multi-level Model for Fibre Reinforced Concrete: Validation and Comparison with Fib Model Code. RILEM Bookseries, 2022, , 365-376.	0.2	0
2	A variationally consistent hyperstatic reaction method for tunnel lining design. International Journal for Numerical and Analytical Methods in Geomechanics, 2022, 46, 205-217.	1.7	2
3	Real-Time Risk Assessment of Tunneling-Induced Building Damage Considering Polymorphic Uncertainty. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2022, 8, .	1.1	8
4	A mixed u–p edge-based smoothed particle finite element formulation for viscous flow simulations. Computational Mechanics, 2022, 69, 891-910.	2.2	12
5	Reliability based optimization of steel-fibre segmental tunnel linings subjected to thrust jack loadings. Engineering Structures, 2022, 254, 113752.	2.6	5
6	A CutFEM based framework for numerical simulations of machine driven tunnels with arbitrary alignments. Computers and Geotechnics, 2022, 144, 104637.	2.3	6
7	Competición a ciegas de simulaciones numéricas de vigas de hormigón reforzado con fibras que fallan a cortante. Hormigon Y Acero, 2022, 73, 17-39.	0.1	1
8	Extrusion process simulation and layer shape prediction during 3D-concrete-printing using the Particle Finite Element Method. Automation in Construction, 2022, 136, 104173.	4.8	32
9	Algorithm for aging materials with evolving stiffness based on a multiplicative split. Computer Methods in Applied Mechanics and Engineering, 2022, 397, 115080.	3.4	0
10	From digital models to numerical analysis for mechanised tunnelling: A fully automated design-through-analysis workflow. Tunnelling and Underground Space Technology, 2021, 107, 103622.	3.0	18
11	Object-oriented framework for 3D bending and free vibration analysis of multilayer plates: Application to cross-laminated timber and soft-core sandwich panels. Composite Structures, 2021, 255, 112859.	3.1	2
12	Variational interface element model for 2D and 3D hydraulic fracturing simulations. Computer Methods in Applied Mechanics and Engineering, 2021, 373, 113450.	3.4	2
13	Blind competition on the numerical simulation of steel‐fiber‐reinforced concrete beams failing in shear. Structural Concrete, 2021, 22, 939-967.	1.5	10
14	Interaction of cutting disc with heterogeneous ground. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000060.	0.2	4
15	Reduced order voxel‐based model for computational modelling of highly compressible composite materials. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000056.	0.2	0
16	Multiscale modeling of Retinal Hypoxia due to Age‐related Macular Degeneration. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000297.	0.2	1
17	Computational analysis of the influence of drusen growth on the morphology of RPE due to Age‐related Macular Degeneration. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000298.	0.2	1
18	Numerical analysis of plain and fiber reinforced concrete structures during cyclic loading: Influence of frictional sliding and crack roughness. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000167.	0.2	2

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19	Multiscale modeling of distributed microcracking in concrete. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000228.	0.2	0
20	Comparison of Hilbert Transform and Complex Demodulation for Defect Identification in Cutting Discs using Vibration-Based Feature Extraction. Lecture Notes in Civil Engineering, 2021, , 564-572.	0.3	0
21	Peridynamic analysis of dynamic fracture: influence of peridynamic horizon, dimensionality and specimen size. Computational Mechanics, 2021, 67, 1719-1745.	2.2	16
22	Structural forces in segmental linings: process-oriented tunnel advance simulations vs. conventional structural analysis. Tunnelling and Underground Space Technology, 2021, 111, 103836.	3.0	11
23	A hysteresis model for the unfrozen liquid content in freezing porous media. Computers and Geotechnics, 2021, 134, 104048.	2.3	9
24	Computational Generation of Virtual Concrete Mesostructures. Materials, 2021, 14, 3782.	1.3	20
25	Reduced Order Multiscale Simulation of Diffuse Damage in Concrete. Materials, 2021, 14, 3830.	1.3	2
26	Sensitivity of Ultrasonic Coda Wave Interferometry to Material Damage—Observations from a Virtual Concrete Lab. Materials, 2021, 14, 4033.	1.3	5
27	Numerical Simulation-Based Damage Identification in Concrete. Modelling, 2021, 2, 355-369.	0.8	5
28	Deterioration of concrete due to ASR: Experiments and multiscale modeling. Cement and Concrete Research, 2021, 149, 106575.	4.6	17
29	Reinforcing bars modelling using a rod–solid interface element without the need for mesh compatibility. Finite Elements in Analysis and Design, 2021, 197, 103634.	1.7	3
30	Erschütterungsprognose für dynamische Verdichtungsgeräte unter Berücksichtigung der bodenabhängigen Kraftemission/Prediction of vibration caused by dynamic compactors considering soil-dependent force emission. Bauingenieur, 2021, 96, 143-155.	0.1	0
31	Multi-level approach for modelling the post-cracking response of steel fibre reinforced concrete under monotonic and cyclic loading. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	3
32	A Multiscale drusen growth model for Age-related Macular Degeneration. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0
33	Influence of dimensionality and specimen size on dynamic fracture. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0
34	Computational modelling of compressible cementitious composite materials. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0
35	Experimental and Numerical Investigations on High Performance SFRC: Cyclic Tensile Loading and Fatigue. Materials, 2021, 14, 7593.	1.3	5
36	Damage identification in concrete using multiscale computational modeling and convolutional neural networks. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0

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37	A 3D particle finite element model for the simulation of soft soil excavation using hypoplasticity. Computational Particle Mechanics, 2020, 7, 151-172.	1.5	9
38	Multilevel surrogate modeling approach for optimization problems with polymorphic uncertain parameters. International Journal of Approximate Reasoning, 2020, 119, 81-91.	1.9	19
39	Cementitious Composites with High Compaction Potential: Modeling and Calibration. Materials, 2020, 13, 4989.	1.3	10
40	BIM-to-IGA: A fully automatic design-through-analysis workflow for segmented tunnel linings. Advanced Engineering Informatics, 2020, 46, 101137.	4.0	19
41	Efficient cut-cell quadrature based on moment fitting for materially nonlinear analysis. Computer Methods in Applied Mechanics and Engineering, 2020, 366, 113050.	3.4	12
42	Influence of muck properties and chamber design on pressure distribution in EPB pressure chambers â€" Insights from computational flow simulations. Tunnelling and Underground Space Technology, 2020, 99, 103333.	3.0	11
43	A parallelization strategy for hydro-mechanically coupled mechanized tunneling simulations. Computers and Geotechnics, 2020, 120, 103378.	2.3	9
44	Robust segmental lining design â€" Potentials of advanced numerical simulations for the design of TBM driven tunnels. Geomechanik Und Tunnelbau, 2019, 12, 484-490.	0.2	4
45	Fatigue behavior of HPC and FRC under cyclic tensile loading: Experiments and modeling. Structural Concrete, 2019, 20, 1265-1278.	1.5	14
46	Peridynamic investigation of dynamic brittle fracture. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900180.	0.2	3
47	Active Learning for Accurate Settlement Prediction Using Numerical Simulations in Mechanized Tunneling. Procedia CIRP, 2019, 81, 1052-1058.	1.0	9
48	Modeling of structures with polymorphic uncertainties at different length scales. GAMM Mitteilungen, 2019, 42, e201900006.	2.7	1
49	Configurational-force interface model for brittle fracture propagation. Computer Methods in Applied Mechanics and Engineering, 2019, 351, 351-378.	3.4	8
50	Computationally Efficient Simulation in Urban Mechanized Tunneling Based on Multilevel BIM Models. Journal of Computing in Civil Engineering, 2019, 33, .	2.5	29
51	Particle Finite Element Simulation of Fresh Cement Paste â€" Inspired by Additive Manufacturing Techniques. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900198.	0.2	11
52	Extended hypoplastic model incorporating the coordination number for the simulation of granular flow. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900309.	0.2	0
53	Expansion and deterioration of concrete due to ASR: Micromechanical modeling and analysis. Cement and Concrete Research, 2019, 115, 507-518.	4.6	37
54	Computational modeling of fiber flow during casting of fresh concrete. Computational Mechanics, 2019, 63, 1111-1129.	2.2	17

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55	Optimization Approaches for the Numerical Design of Structures Under Consideration of Polymorphic Uncertain Data. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2019, 5, .	0.7	7
56	Building Information Modelling in mechanised shield tunnelling â€" A practitioner's outlook to the near future. Geomechanik Und Tunnelbau, 2018, 11, 34-49.	0.2	7
57	A holistic approach for the investigation of lining response to mechanized tunneling induced construction loadings. Underground Space (China), 2018, 3, 45-60.	3.4	14
58	Hypoplastic particle finite element model for cutting tool-soil interaction simulations: Numerical analysis and experimental validation. Underground Space (China), 2018, 3, 61-71.	3.4	12
59	A Shear-Slip Mesh Update â€" Immersed Boundary Finite Element model for computational simulations of material transport in EPB tunnel boring machines. Finite Elements in Analysis and Design, 2018, 142, 1-16.	1.7	14
60	Recurrent neural networks and proper orthogonal decomposition with interval data for real-time predictions of mechanised tunnelling processes. Computers and Structures, 2018, 207, 258-273.	2.4	60
61	A multiscale homogenization model for strength predictions of fully and partially frozen soils. Acta Geotechnica, 2018, 13, 175-193.	2.9	21
62	Variational approach to interface element modeling of brittle fracture propagation. Computer Methods in Applied Mechanics and Engineering, 2018, 328, 452-476.	3.4	21
63	An algorithm based on incompatible modes for the global tracking of strong discontinuities in shear localization analyses. Computer Methods in Applied Mechanics and Engineering, 2018, 330, 33-63.	3.4	7
64	Application of the Finite Cell Method to Tunnel Engineering Simulation. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800011.	0.2	1
65	Optimization Approaches for Durable Reinforced Concrete Structures considering Interval and Stochastic Parameter Uncertainty. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800444.	0.2	1
66	A fuzzy surrogate modelling approach for real-time predictions in mechanised tunnelling. International Journal of Reliability and Safety, 2018, 12, 187.	0.2	8
67	A rateâ€dependent damage model for prediction of highâ€speed cracks. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800330.	0.2	4
68	Simulationâ€based investigation of the influence of the microâ€structure and disorder on damage evolution in concrete. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800380.	0.2	1
69	Multiscale modelling of alkali transport and ASR in concrete structures. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800235.	0.2	2
70	Effective Diffusivity of Porous Materials with Microcracks: Self-Similar Mean-Field Homogenization and Pixel Finite Element Simulations. Transport in Porous Media, 2018, 125, 413-434.	1.2	9
71	Reliability Analysis and Real-Time Predictions in Mechanized Tunneling. , 2018, , .		3
72	A Multiscale Model for High Performance FRC. RILEM Bookseries, 2018, , 97-105.	0.2	1

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73	A fuzzy surrogate modelling approach for real-time predictions in mechanised tunnelling. International Journal of Reliability and Safety, 2018, 12, 187.	0.2	2
74	Lining Induced Stresses for Mechanized Tunneling Along Curved Alignment. Sustainable Civil Infrastructures, 2018, , 36-52.	0.1	0
75	Simulation based evaluation of time-variant loadings acting on tunnel linings during mechanized tunnel construction. Engineering Structures, 2017, 135, 21-40.	2.6	38
76	The intrinsic permeability of microcracks in porous solids: Analytical models and Lattice Boltzmann simulations. International Journal for Numerical and Analytical Methods in Geomechanics, 2017, 41, 1138-1154.	1.7	7
77	A hybrid finite element and surrogate modelling approach for simulation and monitoring supported TBM steering. Tunnelling and Underground Space Technology, 2017, 63, 12-28.	3.0	51
78	Cascade Continuum Micromechanics model for the effective permeability of solids with distributed microcracks: Comparison with numerical homogenization. Mechanics of Materials, 2017, 115, 64-75.	1.7	3
79	Degradation in concrete structures due to cyclic loading and its effect on transport processes—Experiments and modeling. Structural Concrete, 2017, 18, 519-527.	1.5	10
80	Wave dispersion and propagation in state-based peridynamics. Computational Mechanics, 2017, 60, 725-738.	2.2	71
81	Cascade continuum micromechanics model for the effective permeability of solids with distributed microcracks: Self-similar mean-field homogenization and image analysis. Mechanics of Materials, 2017, 104, 60-72.	1.7	10
82	Variational interface zone model for modeling of fluid induced fracture propagation. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 99-102.	0.2	0
83	Wave dispersion and propagation in a linear peridynamic solid. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 409-410.	0.2	1
84	The effective thermal conductivity of carbon nanotube composites. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 613-614.	0.2	0
85	Adaptive Crack Modeling with Interface Solid Elements for Plain and Fiber Reinforced Concrete Structures. Materials, 2017, 10, 771.	1.3	8
86	A COUPLED COMPUTATIONAL APPROACH FOR THE SIMULATION OF SOIL EXCAVATION AND TRANSPORT IN EARTH-PRESSURE BALANCE SHIELD MACHINES. International Journal for Multiscale Computational Engineering, 2017, 15, 239-264.	0.8	6
87	A micromechanics model for molecular diffusion in materials with complex pore structure. International Journal for Numerical and Analytical Methods in Geomechanics, 2016, 40, 686-712.	1.7	8
88	Surrogate Modelling for Real‐time Predictions of Mechanised Tunnelling Processes with Interval Data. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 35-38.	0.2	0
89	A higher-order stress-based gradient-enhanced damage model based on isogeometric analysis. Computer Methods in Applied Mechanics and Engineering, 2016, 304, 584-604.	3.4	65
90	A finite element model for propagating delamination in laminated composite plates based on the Virtual Crack Closure method. Composite Structures, 2016, 150, 8-19.	3.1	35

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91	Cascade Lattice Micromechanics Model for the Effective Permeability of Materials with Microcracks. Journal of Nanomechanics & Micromechanics, 2016, 6, .	1.4	11
92	Advanced finite element modeling of excavation and advancement processes in mechanized tunneling. Advances in Engineering Software, 2016, 100, 198-214.	1.8	67
93	Multilevel Computational Model for Failure Analysis of Steel-Fiber–Reinforced Concrete Structures. Journal of Engineering Mechanics - ASCE, 2016, 142, .	1.6	53
94	Modeling the effective permeability of microcracked materials using continuum and lattice micromechanics. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 555-556.	0.2	0
95	Computational Excavation Analysis of a Single Cutting Tool using a Hypoplastic Constitutive Model. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 369-370.	0.2	3
96	A micromechanics model for FRC composites. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 543-544.	0.2	2
97	Strong discontinuity approaches: An algorithm for robust performance and comparative assessment of accuracy. International Journal of Solids and Structures, 2016, 96, 355-379.	1.3	18
98	A hybrid RNN-GPOD surrogate model for real-time settlement predictions in mechanised tunnelling. Advanced Modeling and Simulation in Engineering Sciences, 2016, 3, .	0.7	25
99	A cascade continuum micromechanics model for the effective elastic properties of porous materials. International Journal of Solids and Structures, 2016, 83, 1-12.	1.3	39
100	Glaucoma and Structure-Based Mechanics of the Lamina Cribrosa at Multiple Scales. , 2016, , 93-122.		4
101	Optimization of artificial ground freezing in tunneling in the presence of seepage flow. Computers and Geotechnics, 2016, 75, 112-125.	2.3	84
102	A new mixed finite-element approach for the elastoplastic analysis of Mindlin plates. Journal of Engineering Mathematics, 2016, 99, 137-155.	0.6	7
103	Cascade Continuum Micromechanics Model for the Effective Diffusivity of Porous Materials: Exponential Hierarchy across Cascade Levels. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 471-472.	0.2	3
104	Hybrid surrogate modelling for mechanised tunnelling simulations with uncertain data. International Journal of Reliability and Safety, 2015, 9, 154.	0.2	20
105	A Generalized Finite Element Method for hydro-mechanically coupled analysis of hydraulic fracturing problems using space-time variant enrichment functions. Computer Methods in Applied Mechanics and Engineering, 2015, 290, 438-465.	3.4	45
106	Computational Modeling of Concrete Degradation Due to Alkali Silica Reaction. , 2015, , .		1
107	Geometrically nonlinear transient analysis of delaminated composite and sandwich plates using a layerwise displacement model with contact conditions. Composite Structures, 2015, 122, 67-81.	3.1	32
108	Model update and real-time steering of tunnel boring machines using simulation-based meta models. Tunnelling and Underground Space Technology, 2015, 45, 138-152.	3.0	49

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109	Analytical Model for the Pullout Behavior of Straight and Hooked-End Steel Fibers. Journal of Engineering Mechanics - ASCE, 2014, 140, .	1.6	64
110	Hydraulic effects of fracture in brittle porous materials. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 135-136.	0.2	1
111	Numerical Modeling of Artificial Ground Freezing: Multiphase Modeling and Strength Upscaling. , 2014, , .		6
112	Numerical Assessment of Stabilization Techniques for Coupled Poro-plastic Analysis using Low-Order Finite Elements. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 503-504.	0.2	0
113	Coupled Computational Simulation of Excavation and Soil Transport in Earth-Pressure Balance Shield Tunneling Machines Using a Viscous Two-Phase Fluid Model for Soil-Foam Mixtures. , 2014, , .		4
114	Experimental, analytical and numerical analysis of the pullout behaviour of steel fibres considering different fibre types, inclinations and concrete strengths. Structural Concrete, 2014, 15, 126-135.	1.5	73
115	Strength homogenization of matrix-inclusion composites using the linear comparison composite approach. International Journal of Solids and Structures, 2014, 51, 259-273.	1.3	18
116	An ALE–PFEM method for the numerical simulation of two-phase mixture flow. Computer Methods in Applied Mechanics and Engineering, 2014, 278, 599-620.	3.4	13
117	Adaptive Computational Simulation of TBM-Soil Interactions during Machine-Driven Tunnel Construction in Saturated Soft Soils. , 2014, , .		3
118	Beam–solid contact formulation for finite element analysis of pile–soil interaction with arbitrary discretization. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 1453-1476.	1.7	25
119	An Imbricate Finite Element Method (I-FEM) using full, reduced, and smoothed integration. Computational Mechanics, 2013, 52, 993-1021.	2.2	1
120	An edge–based smoothed finite element method for 3D analysis of solid mechanics problems. International Journal for Numerical Methods in Engineering, 2013, 94, 715-739.	1.5	25
121	Parallelized computational modeling of pile–soil interactions in mechanized tunneling. Engineering Structures, 2013, 47, 35-44.	2.6	33
122	Diffusion in Fracturing Porous Materials: Characterizing Topological Effects using Cascade Micromechanics and Phase-Field Models. , 2013, , .		3
123	Strength Homogenization for Partially Frozen Soil using Linear Comparison Composite Approach. , 2013, , .		0
124	Numerical Simulation of Interactions between the Shield-Supported Tunnel Construction Process and the Response of Soft Water-Saturated Soils. International Journal of Geomechanics, 2012, 12, 689-696.	1.3	14
125	An Edge-based Imbricate Finite Element Method (EI-FEM) with full and reduced integration. Computers and Structures, 2012, 106-107, 154-175.	2.4	11
126	Lamina cribrosa thickening in early glaucoma predicted by a microstructure motivated growth and remodeling approach. Mechanics of Materials, 2012, 44, 99-109.	1.7	97

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127	Computational Simulation of Mechanized Tunneling as Part of an Integrated Decision Support Platform. International Journal of Geomechanics, 2011, 11, 519-528.	1.3	30
128	The collagen fibril architecture in the lamina cribrosa and peripapillary sclera predicted by a computational remodeling approach. Biomechanics and Modeling in Mechanobiology, 2011, 10, 371-382.	1.4	137
129	Grout and bentonite flow around a TBM: Computational modeling and simulation-based assessment of influence on surface settlements. Tunnelling and Underground Space Technology, 2011, 26, 445-452.	3.0	28
130	Extended Finite Element Method for hygro€mechanical analysis of crack propagation in porous materials. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 161-162.	0.2	10
131	Numerical modelling of coupling mechanisms during freezing in porous materials. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 495-496.	0.2	3
132	Micromechanics model for tortuosity and homogenized diffusion properties of porous materials with distributed micro-cracks. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 555-556.	0.2	5
133	Smeared Crack and X-FEM Models in the Context of Poromechanics. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2011, , 265-327.	0.3	1
134	A computational remodeling approach to predict the physiological architecture of the collagen fibril network in corneo-scleral shells. Biomechanics and Modeling in Mechanobiology, 2010, 9, 225-235.	1.4	95
135	An elasto€plastic three phase model for partially saturated soil for the finite element simulation of compressed air support in tunnelling. International Journal for Numerical and Analytical Methods in Geomechanics, 2010, 34, 605-625.	1.7	40
136	Process€oriented numerical simulation of shield€supported tunnelling in soft soils /. Geomechanik Und Tunnelbau, 2010, 3, 268-282.	0.2	30
137	A hybrid modeling concept for ultra low cycle fatigue of metallic structures based on micropore damage and unit cell models. International Journal of Fatigue, 2010, 32, 1885-1894.	2.8	11
138	Determination of homogenized diffusion properties in micro-cracked porous materials. Proceedings in Applied Mathematics and Mechanics, 2010, 10, 429-430.	0.2	2
139	Homogenization-based model for reinforced concrete. , 2010, , 217-224.		0
140	Anisotropic and field-specific higher order spatial discretization methods for multiphase durability analyses. Computers and Structures, 2009, 87, 1349-1359.	2.4	1
141	A Simulation Model for Shield Tunnelling and its Interactions with Partially Saturated Soil. Proceedings in Applied Mathematics and Mechanics, 2009, 9, 215-216.	0.2	3
142	A two-phase Finite Element model for coupled heat flux and water flow in fully saturated soils. Proceedings in Applied Mathematics and Mechanics, 2009, 9, 391-392.	0.2	0
143	Constitutive modeling of crimped collagen fibrils in soft tissues. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 522-533.	1.5	146
144	Consistent micro-macro transitions at large objective strains in curvilinear convective coordinates. International Journal for Numerical Methods in Engineering, 2008, 73, 805-824.	1.5	14

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145	Variational Extended Finite Element Model for Cohesive Cracks: Influence of Integration and Interface Law. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2007, , 283-301.	0.1	3
146	Crack propagation criteria in the framework of X-FEM-based structural analyses. International Journal for Numerical and Analytical Methods in Geomechanics, 2007, 31, 239-259.	1.7	124
147	Advanced models for fracture in quasi-brittle materials. International Journal for Numerical and Analytical Methods in Geomechanics, 2007, 31, 109-109.	1.7	1
148	Numerical analysis of dissolution processes in cementitious materials using discontinuous and continuous Galerkin time integration schemes. International Journal for Numerical Methods in Engineering, 2007, 69, 1775-1803.	1.5	13
149	Energy-based modeling of cohesive and cohesionless cracks via X-FEM. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 2338-2357.	3.4	146
150	A three-phase FE-model for the simulation of partially saturated soils. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4070009-4070010.	0.2	4
151	Computational micro-macro transitions at large strains for curvilinear physical directions. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4080009-4080010.	0.2	0
152	A numerical study of the effect of soil and grout material properties and cover depth in shield tunnelling. Computers and Geotechnics, 2006, 33, 234-247.	2.3	118
153	On the influence of face pressure, grouting pressure and TBM design in soft ground tunnelling. Tunnelling and Underground Space Technology, 2006, 21, 160-171.	3.0	150
154	Aspects of crack propagation and hygro-mechanical coupling using X-FEM. , 2006, , 254-254.		0
155	Computational Homogenization in Multi-scale Shell Analysis at Large Strains. , 2006, , 592-592.		0
156	Galerkin time integration of chemical dissolution and species transport in porous media. , 2005, , .		0
157	Preface to computational mechanics of concrete and concrete structures. International Journal for Numerical and Analytical Methods in Geomechanics, 2004, 28, 563-564.	1.7	0
158	A 3D finite element simulation model for TBM tunnelling in soft ground. International Journal for Numerical and Analytical Methods in Geomechanics, 2004, 28, 1441-1460.	1.7	220
159	Coupled chemo-mechanical deterioration of cementitious materials Part II: Numerical methods and simulations. International Journal of Solids and Structures, 2004, 41, 41-67.	1.3	65
160	Coupled chemo-mechanical deterioration of cementitious materials. Part I: Modeling. International Journal of Solids and Structures, 2004, 41, 15-40.	1.3	118
161	Environmentally induced deterioration of concrete: physical motivation and numerical modeling. Engineering Fracture Mechanics, 2003, 70, 891-910.	2.0	44
162	Algorithmic stabilization of FE analyses of 2D frictional contact problems with large slip. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 2099-2124.	3.4	6

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163	Finite elements in shell analysis: A comparison of 3D-p- and higher order shell elements. Proceedings in Applied Mathematics and Mechanics, 2003, 3, 250-251.	0.2	0
164	Numerical Modeling of Coupled Hygromechanical Degradation of Cementitious Materials. Journal of Engineering Mechanics - ASCE, 2003, 129, 383-392.	1.6	52
165	Coupled material modelling and multifield structural analyses in civil engineering. Engineering Computations, 2003, 20, 524-558.	0.7	4
166	A comparison of coupled chemo-mechanical damage models of concrete using phenomenological chemistry and reaction kinetics. , 2001, , 1278-1280.		2
167	A re-formulation of the exponential algorithm for finite strain plasticity in terms of cauchy stresses. Computer Methods in Applied Mechanics and Engineering, 1999, 173, 167-187.	3.4	26
168	Computer-Aided Retrofitting of a Damaged RC Cooling Tower Shell. Journal of Structural Engineering, 1999, 125, 328-337.	1.7	10
169	An anisotropic elastoplastic-damage model for plain concrete. International Journal for Numerical Methods in Engineering, 1998, 42, 703-727.	1.5	146
170	Friction Mechanism of Tread Blocks on Snow Surfaces. Tire Science and Technology, 1997, 25, 245-264.	0.3	17
171	Large Strain Finite-Element Analysis of Snow. Journal of Engineering Mechanics - ASCE, 1996, 122, 591-602.	1.6	35
172	NUMERICAL ANALYSES OF TUNNEL LININGS BY MEANS OF A VISCOPLASTIC MATERIAL MODEL FOR SHOTCRETE. International Journal for Numerical Methods in Engineering, 1996, 39, 3145-3162.	1.5	54
173	Large-strain 3D-analysis of fibre-reinforced composites using rebar elements: hyperelastic formulations for cords. Computational Mechanics, 1994, 13, 241-254.	2.2	37
174	A new class of algorithms for classical plasticity extended to finite strains. Application to geomaterials. Computational Mechanics, 1993, 11, 253-278.	2.2	88
175	Nonlinear finite element analysis of reinforced and prestressed concrete structures. Engineering Structures, 1991, 13, 211-226.	2.6	9
176	Finite Element Analyses of Cracked Cooling Tower Shell. Journal of Structural Engineering, 1991, 117, 2620-2638.	1.7	20
177	Hybrid RNN-GPOD Surrogate Model for Simulation and Monitoring Supported TBM Steering. , 0, , .		1