

Ralf Jörncke

List of Publications by Year in descending order

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46
papers

537
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759233

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docs citations

47
times ranked

450
citing authors

#	ARTICLE	IF	CITATIONS
1	EVALUATION OF GENERALIZED CONTINUUM SUBSTITUTION MODELS FOR HETEROGENEOUS MATERIALS. International Journal for Multiscale Computational Engineering, 2012, 10, 527-549.	1.2	65
2	Sensitivity of S-wave attenuation to the connectivity of fractures in fluid-saturated rocks. Geophysics, 2014, 79, WB15-WB24.	2.6	62
3	Two-scale modelling of micromorphic continua. Continuum Mechanics and Thermodynamics, 2009, 21, 297-315.	2.2	57
4	Numerical homogenization of mesoscopic loss in poroelastic media. European Journal of Mechanics, A/Solids, 2015, 49, 382-395.	3.7	47
5	Nonlinear modeling and computational homogenization of asphalt concrete on the basis of XRCT scans. Construction and Building Materials, 2016, 109, 96-108.	7.2	33
6	Performance of bicontinuous structural electrolytes. Multifunctional Materials, 2020, 3, 025001.	3.7	32
7	Numerical modeling and laboratory measurements of seismic attenuation in partially saturated rock. Geophysics, 2014, 79, L13-L20.	2.6	28
8	Minimal loading conditions for higher-order numerical homogenisation schemes. Archive of Applied Mechanics, 2012, 82, 1075-1088.	2.2	23
9	Numerical investigations of foam-like materials by nested high-order finite element methods. Computational Mechanics, 2009, 45, 45-59.	4.0	21
10	Numerical identification of a viscoelastic substitute model for heterogeneous poroelastic media by a reduced order homogenization approach. Computer Methods in Applied Mechanics and Engineering, 2016, 298, 108-120.	6.6	19
11	Computational homogenisation of phase-field fracture. European Journal of Mechanics, A/Solids, 2021, 88, 104247.	3.7	19
12	Multi-scale modelling of elastic/viscoelastic compounds. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2013, 93, 126-137.	1.6	18
13	Computational modelling of structural batteries accounting for stress-assisted convection in the electrolyte. International Journal of Solids and Structures, 2022, 238, 111343.	2.7	12
14	MICROMORPHIC TWO-SCALE MODELLING OF PERIODIC GRID STRUCTURES. International Journal for Multiscale Computational Engineering, 2013, 11, 161-176.	1.2	11
15	Diffuse interface modeling and variationally consistent homogenization of fluid transport in fractured porous media. European Journal of Mechanics, A/Solids, 2020, 84, 104067.	3.7	10
16	A poro-viscoelastic substitute model of fine-scale poroelasticity obtained from homogenization and numerical model reduction. Computational Mechanics, 2020, 65, 1063-1083.	4.0	10
17	Identification of viscoelastic properties from numerical model reduction of pressure diffusion in fluid-saturated porous rock with fractures. Computational Mechanics, 2019, 63, 49-67.	4.0	9
18	Energy dissipation of P- and S-waves in fluid-saturated rocks: An overview focusing on hydraulically connected fractures. Journal of Earth Science (Wuhan, China), 2015, 26, 785-790.	3.2	8

#	ARTICLE	IF	CITATIONS
19	Digital material laboratory: Wave propagation effects in open-cell aluminium foams. <i>International Journal of Engineering Science</i> , 2012, 58, 115-123.	5.0	7
20	Wave propagation in periodic microstructures by homogenisation of extended continua. <i>Computational Materials Science</i> , 2012, 52, 209-211.	3.0	7
21	Modeling and computational homogenization of chloride diffusion in three-phase meso-scale concrete. <i>Construction and Building Materials</i> , 2021, 271, 121558.	7.2	7
22	A posteriori error estimation for numerical model reduction in computational homogenization of porous media. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 5350-5380.	2.8	6
23	Effective properties and size effects in filled polymers. <i>GAMM Mitteilungen</i> , 2008, 31, 210-224.	5.5	5
24	Variationally consistent computational homogenization of chemomechanical problems with stabilized weakly periodic boundary conditions. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 6429-6454.	2.8	5
25	Numerical Model Reduction with error estimation for computational homogenization of non-linear consolidation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 389, 114334.	6.6	5
26	A numerical homogenisation strategy for micromorphic continua. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2009, 9, 437-438.	0.2	3
27	Viscoelastic substitute models for seismic attenuation caused by squirt flow and fracture leak off. <i>Geophysics</i> , 2019, 84, WA183-WA189.	2.6	3
28	Microscale Investigations of Highfrequency Wave Propagation Through Highly Porous Media. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2012, 12, 555-556.	0.2	1
29	Numerical investigation of seismic attenuation in fluid-saturated fractured media: An extended view of the Skempton coefficient. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2016, 16, 471-472.	0.2	1
30	Computational homogenization of the electrochemically coupled multi-scale transport of Li ⁺ ions in structural battery electrolytes. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2021, 20, e202000138.	0.2	1
31	Investigations on an elastic micropolar continuum model for large deformations. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2008, 8, 10549-10550.	0.2	0
32	Numerical homogenization of foam-like structures based on the FE2-approach. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2008, 8, 10573-10574.	0.2	0
33	On Dirichlet boundary conditions in second-order FE2-schemes. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2010, 10, 423-424.	0.2	0
34	Relaxed loading conditions for higher order homogenisation approaches. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2011, 11, 947-950.	0.2	0
35	Bituminous asphalt concrete: Aspects on scale-bridging. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2012, 12, 333-334.	0.2	0
36	Effects of fracture connectivity on S-wave attenuation caused by wave-induced fluid flow. , 2013, , .		0

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37	Asphalt concrete: From $\hat{\mu}$ CT scans towards multiscale modelling of effective properties. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 543-544.	0.2	0
38	Continuum modeling of the swelling behavior of concrete when modified through superabsorbent polymers. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 475-476.	0.2	0
39	Numerical Investigation of the Effective Skempton Coefficient in Porous Rock Containing Fluid-Filled Fracture Networks. , 2017, , .		0
40	Computational generation of statistical volume elements of biphasic asphalt concrete and its material behavior. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 485-486.	0.2	0
41	Numerical investigation of the effective Skempton coefficient in fluid-saturated fractured rock. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 541-542.	0.2	0
42	Computational Homogenization of Seismic Attenuation in Fractured Rock. , 2017, , .		0
43	Reduced order modeling of viscoelastic properties of asphalt concrete. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800240.	0.2	0
44	Computational aspects of the weak micro- ϵ -periodicity saddle point problem. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000259.	0.2	0
45	Combining spectral and POD modes to improve error estimation of numerical model reduction for porous media. Computational Mechanics, 2022, 69, 767-786.	4.0	0
46	Efficient Two-Scale Modeling of Porous Media Using Numerical Model Reduction with Fully Computable Error Bounds. , 2022, , 121-129.		0