

Stefano Dal Pont

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

951
citations

430843

18
h-index

477281

29
g-index

53
all docs

53
docs citations

53
times ranked

692
citing authors

#	ARTICLE	IF	CITATIONS
1	On the performance of strain smoothing for quadratic and enriched finite element approximations (XFEM/GFEM/PUFEM). <i>International Journal for Numerical Methods in Engineering</i> , 2011, 86, 637-666.	2.8	142
2	Real-time water permeability evolution of a localized crack in concrete under loading. <i>Cement and Concrete Research</i> , 2014, 56, 20-28.	11.0	71
3	Analysis of moisture migration in concrete at high temperature through in-situ neutron tomography. <i>Cement and Concrete Research</i> , 2018, 111, 41-55.	11.0	63
4	Numerical and experimental analysis of chemical dehydration, heat and mass transfers in a concrete hollow cylinder submitted to high temperatures. <i>International Journal of Heat and Mass Transfer</i> , 2004, 47, 135-147.	4.8	55
5	From discrete to continuum modelling of boundary value problems in geomechanics: An integrated FEM–DEM approach. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2019, 43, 919-955.	3.3	48
6	A multiphase thermo-hydro-mechanical model for concrete at high temperatures—Finite element implementation and validation under LOCA load. <i>Nuclear Engineering and Design</i> , 2007, 237, 2137-2150.	1.7	43
7	Real-time evolution of electrical resistance in cracking concrete. <i>Cement and Concrete Research</i> , 2009, 39, 825-831.	11.0	34
8	Modeling concrete under severe conditions as a multiphase material. <i>Nuclear Engineering and Design</i> , 2011, 241, 562-572.	1.7	33
9	From local to global probabilistic modeling of concrete cracking. <i>Annals of Solid and Structural Mechanics</i> , 2010, 1, 103-115.	0.5	31
10	An experimental relationship between complete liquid saturation and violent damage in concrete submitted to high temperature. <i>Magazine of Concrete Research</i> , 2005, 57, 455-461.	2.0	27
11	A study of the influence of REV variability in double-scale FEM –DEM analysis. <i>International Journal for Numerical Methods in Engineering</i> , 2016, 107, 882-900.	2.8	26
12	Macroscopic probabilistic cracking approach for the numerical modelling of fluid leakage in concrete. <i>Annals of Solid and Structural Mechanics</i> , 2015, 7, 1-16.	0.5	25
13	Modeling of 3D moisture distribution in heated concrete: From continuum towards mesoscopic approach. <i>International Journal of Heat and Mass Transfer</i> , 2019, 134, 1137-1152.	4.8	25
14	Size Effect in Concrete Intrinsic Permeability Measurements. <i>Transport in Porous Media</i> , 2010, 85, 541-564.	2.6	21
15	A three-dimensional staggered finite element approach for random parametric modeling of thermo-hygral coupled phenomena in porous media. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2012, 36, 574-596.	3.3	21
16	FEM–DEM multiscale modeling: Model performance enhancement from Newton strategy to element loop parallelization. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 114, 47-65.	2.8	20
17	COST TU1404 benchmark on macroscopic modelling of concrete and concrete structures at early age: Proof-of-concept stage. <i>Construction and Building Materials</i> , 2018, 174, 173-189.	7.2	19
18	Accounting for Small-Scale Heterogeneity and Variability of Clay Rock in Homogenised Numerical Micromechanical Response and Microcracking. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 2727-2746.	5.4	19

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19	Intrinsic Permeability Evolution in High Temperature Concrete: An Experimental and Numerical Analysis. <i>Transport in Porous Media</i> , 2005, 60, 43-74.	2.6	16
20	Modeling concrete exposed to high temperature: Impact of dehydration and retention curves on moisture migration. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2018, 42, 1516-1530.	3.3	16
21	A theory for multiple collisions of rigid solids and numerical simulation of granular flow. <i>International Journal of Solids and Structures</i> , 2006, 43, 6100-6114.	2.7	13
22	Comparative Analysis of Coupled Thermo-Hydro-Mechanical Models for Concrete Exposed to Moderate Temperatures. <i>Numerical Heat Transfer; Part A: Applications</i> , 2009, 55, 654-682.	2.1	13
23	Staggered Finite Volume Modeling of Transport Phenomena in Porous Materials with Convective Boundary Conditions. <i>Transport in Porous Media</i> , 2010, 82, 275-298.	2.6	13
24	Experimental and finite element analysis of a hollow cylinder submitted to high temperatures. <i>Materials and Structures/Materiaux Et Constructions</i> , 2005, 38, 681-690.	3.1	12
25	On the threshold crack opening effect on the intrinsic permeability of localized macro-cracks in concrete samples under Brazilian test conditions. <i>Mechanics Research Communications</i> , 2018, 90, 52-58.	1.8	12
26	Modelling crowd-structure interaction. <i>Mecanique Et Industries</i> , 2010, 11, 495-504.	0.2	10
27	Smooth/non-smooth contact modeling of human crowds movement: numerical aspects and application to emergency evacuations. <i>Annals of Solid and Structural Mechanics</i> , 2011, 2, 69-85.	0.5	10
28	New continuous strain-based description of concrete's damage-permeability coupling. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2018, 42, 1671-1697.	3.3	10
29	Homogenization of a cracked saturated porous medium: Theoretical aspects and numerical implementation. <i>International Journal of Solids and Structures</i> , 2016, 94-95, 222-237.	2.7	9
30	Towards a single-phase mixed formulation of refractory castables and structural concrete at high temperatures. <i>International Journal of Heat and Mass Transfer</i> , 2021, 171, 121064.	4.8	8
31	Heterogeneity and Variability of Clay Rock Microstructure in a Hydro-Mechanical Double Scale FEM – FEM Analysis. <i>Trends in Mathematics</i> , 2018, , 247-256.	0.1	7
32	Quantification of evolving moisture profiles in concrete samples subjected to temperature gradient by means of rapid neutron tomography: Influence of boundary conditions, hygro-thermal loading history and spalling mitigation additives. <i>Strain</i> , 2020, 56, e12371.	2.4	7
33	Discrete approaches for crowd movement modelling. <i>European Journal of Computational Mechanics</i> , 2011, 20, 189-206.	0.6	6
34	FEM – DEM: a new efficient multi-scale approach for geotechnical problems with strain localization. <i>EPJ Web of Conferences</i> , 2017, 140, 11007.	0.3	6
35	An original semi-discrete approach to assess gas conductivity of concrete structures. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2017, 41, 940-956.	3.3	6
36	Some Observations on Testing Conditions of High-Temperature Experiments on Concrete: An Insight from Neutron Tomography. <i>Transport in Porous Media</i> , 2020, 132, 299-310.	2.6	6

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37	Simultaneous x-ray and neutron 4D tomographic study of drying-driven hydro-mechanical behavior of cement-based materials at moderate temperatures. <i>Cement and Concrete Research</i> , 2021, 147, 106503.	11.0	6
38	Theoretical approach to and numerical simulation of instantaneous collisions in granular media using the A-CD2 method. <i>Communications in Applied Mathematics and Computational Science</i> , 2008, 3, 1-24.	1.8	6
39	The non-smooth view for contact dynamics by Michel FrÃ©mond extended to the modeling of crowd movements. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2013, 6, 547-565.	1.1	6
40	Experimental proof of moisture clog through neutron tomography in a porous medium under truly one-directional drying. <i>Journal of the American Ceramic Society</i> , 2022, 105, 3534-3543.	3.8	6
41	Restoring Mesh Independency in FEM-DEM Multi-scale Modelling of Strain Localization Using Second Gradient Regularization. <i>Springer Series in Geomechanics and Geoengineering</i> , 2017, , 453-457.	0.1	5
42	Direct comparison of multi and single-phase models depicting the drying process of refractory castables. <i>Open Ceramics</i> , 2021, 6, 100111.	2.0	4
43	Experimental and finite element analysis of a hollow cylinder submitted to high temperatures. <i>Materials and Structures/Materiaux Et Constructions</i> , 2005, 38, 681-690.	3.1	4
44	A finite element modeling of thermo-hydro-mechanical behavior and numerical simulations of progressing spalling front. <i>Procedia Engineering</i> , 2011, 10, 3128-3133.	1.2	3
45	Modeling of fluid leakage through multi-cracked RC structural elements using a numerical probabilistic cracking approach. <i>Materials and Structures/Materiaux Et Constructions</i> , 2016, 49, 3095-3108.	3.1	3
46	Influence of common simplifications on the drying of cement-based materials up to moderate temperatures. <i>International Journal of Heat and Mass Transfer</i> , 2020, 150, 119254.	4.8	2
47	Modelling the multiscale behaviour of claystone: deformation, rupture, and hydro-mechanical phenomena around underground galleries. <i>E3S Web of Conferences</i> , 2020, 205, 10003.	0.5	2
48	Drying of mortar at ambient temperature studied using high resolution neutron tomography and numerical modeling. <i>Cement and Concrete Composites</i> , 2022, 131, 104586.	10.7	1
49	Induced Anisotropic Gas Permeability of Concrete due to Coupled Effect of Drying and Temperature. <i>Key Engineering Materials</i> , 0, 711, 871-878.	0.4	0
50	Mechanical characterization of Hyposand: A new material of sand solidified by sodium thiosulphate salt. <i>Construction and Building Materials</i> , 2019, 221, 479-490.	7.2	0
51	Advanced Modelling. <i>RILEM State-of-the-Art Reports</i> , 2019, , 27-65.	0.7	0
52	Coupling Cracking and Permeability to Assess the Leakage Rate of Concrete Structures. , 0, ,		0