

Miguel Azenha

List of Publications by Year in descending order

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123
papers

2,483
citations

249298

26
h-index

274796

44
g-index

130
all docs

130
docs citations

130
times ranked

2183
citing authors

#	ARTICLE	IF	CITATIONS
1	Automatic Detection of Surface Damage in Round Brick Chimneys by Finite Plane Modelling from Terrestrial Laser Scanning Point Clouds. Case Study of Bragança Dukes' Palace, Guimarães, Portugal. International Journal of Architectural Heritage, 2023, 17, 389-403.	1.7	5
2	Integrating HBIM and Sustainability Certification: A Pilot Study Using GBC Historic Building Certification. International Journal of Architectural Heritage, 2023, 17, 1464-1483.	1.7	5
3	Development and Demonstration of an HBIM Framework for the Preventive Conservation of Cultural Heritage. International Journal of Architectural Heritage, 2022, 16, 1451-1473.	1.7	20
4	Thermo-Mechanical Analysis of Mass Concrete Foundation Slabs at Early Age"Essential Aspects and Experiences from the FE Modelling. Materials, 2022, 15, 1815.	1.3	3
5	Enhanced massivity index based on evidence from case studies: Towards a robust pre-design assessment of early-age thermal cracking risk and practical recommendations. Construction and Building Materials, 2021, 271, 121570.	3.2	15
6	Modelling macroscopic shrinkage of hardened cement paste considering C-S-H densification. Advances in Cement Research, 2021, 33, 257-284.	0.7	1
7	Organic-inorganic hybrid sol-gel materials doped with a fluorescent triarylimidazole derivative. RSC Advances, 2021, 11, 24613-24623.	1.7	11
8	Effect of Expansive Additives on the Early Age Elastic Modulus Development of Cement Paste by Ambient Response Method (ARM). RILEM Bookseries, 2021, , 319-327.	0.2	2
9	Early Age Temperature Control in Mass Concrete Through Incorporation of Dispersed Phase Change Materials (PCMs). RILEM Bookseries, 2021, , 13-24.	0.2	0
10	Long-Term Experimental Campaign on RC Shrinkage Cracking: Conceptualization, Planning and Experimental Procedures. RILEM Bookseries, 2021, , 141-153.	0.2	0
11	Validation of Thermo-hygro-Mechanical FEM Analysis of Thick Restrained RC Members by Comparison with Experiments. RILEM Bookseries, 2021, , 291-303.	0.2	0
12	Towards the Understanding the Role of the Mix Design Method in the Mechanical Behaviour of Recycled Aggregate Concrete at Early Ages. RILEM Bookseries, 2021, , 279-288.	0.2	0
13	Seismic behaviour of precast sandwich wall panels of steel fibre reinforced concrete layers and fibre reinforced polymer connectors. Engineering Structures, 2021, 237, 112149.	2.6	15
14	Ageing and air leakage assessment of a nuclear reactor containment mock-up: VERCORS 2nd benchmark. Nuclear Engineering and Design, 2021, 377, 111136.	0.8	19
15	Recommendations of RILEM TC 287-CCS: thermo-chemo-mechanical modelling of massive concrete structures towards cracking risk assessment. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	1.3	13
16	Experimental analysis of lime putty and pozzolan-based mortar for interventions in archaeological sites. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	1.3	3
17	Numerical simulations of derived URM-RC buildings: Assessment of strengthening interventions with RC. Journal of Building Engineering, 2021, 40, 102304.	1.6	0
18	Thermo-chemo-hygro-mechanical simulation of the restrained shrinkage ring test for cement-based materials under distinct drying conditions. Construction and Building Materials, 2021, 294, 123600.	3.2	6

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19	Early age cracking risk in a massive concrete foundation slab: Comparison of analytical and numerical prediction models with on-site measurements. <i>Construction and Building Materials</i> , 2021, 301, 124135.	3.2	15
20	Experiences and analysis of the construction process of mass foundation slabs aimed at reducing the risk of early age cracks. <i>Journal of Building Engineering</i> , 2021, 44, 102947.	1.6	7
21	Performance Requirements, Challenges and Existing Solutions of PCM in Massive Concrete for Temperature Control. <i>RILEM Bookseries</i> , 2021, , 93-103.	0.2	0
22	Evoluo do Processo de Carbonatao em Argamassas de Cal Area. <i>Revista Materia</i> , 2021, 26, .	0.1	0
23	A new method based on equivalent surfaces for simulation of the post-cooling in concrete arch dams during construction. <i>Engineering Structures</i> , 2020, 209, 109976.	2.6	15
24	A new test setup for simulation of the combined effect of bending and axial restraint in slab-like specimens. <i>Engineering Structures</i> , 2020, 225, 111251.	2.6	1
25	FEM Applied to Building Physics: Modeling Solar Radiation and Heat Transfer of PCM Enhanced Test Cells. <i>Energies</i> , 2020, 13, 2200.	1.6	5
26	Boosting Smart Building Energy Saving Capacity using Phase Change Materials. , 2020, , .		0
27	Analytical assessment of restraint forces and crack widths in end-restrained building slabs. <i>Engineering Structures</i> , 2020, 224, 111218.	2.6	4
28	Experiences on early age cracking of wall-on-slab concrete structures. <i>Structures</i> , 2020, 27, 2520-2549.	1.7	18
29	An innovative approach for temperature control of massive concrete structures at early ages based on post-cooling: Proof of concept. <i>Journal of Building Engineering</i> , 2020, 32, 101832.	1.6	5
30	Internal curing of alkali-activated slag-fly ash paste with superabsorbent polymers. <i>Construction and Building Materials</i> , 2020, 263, 120985.	3.2	36
31	A meso-scale discrete element method framework to simulate thermo-mechanical failure of concrete subjected to elevated temperatures. <i>Engineering Fracture Mechanics</i> , 2020, 239, 107269.	2.0	21
32	Internal curing by superabsorbent polymers in alkali-activated slag. <i>Cement and Concrete Research</i> , 2020, 135, 106123.	4.6	71
33	Practice on creating a common reference concrete for Round Robin Testing programmes based on the experience from COST Action TU1404. <i>Construction and Building Materials</i> , 2020, 247, 118542.	3.2	2
34	Microstructural simulation and measurement of elastic modulus evolution of hydrating cement pastes. <i>Cement and Concrete Research</i> , 2020, 130, 106007.	4.6	14
35	Displacement-based seismic performance evaluation and vulnerability assessment of buildings: The N2 method revisited. <i>Structures</i> , 2020, 24, 41-49.	1.7	8
36	3D numerical simulation of the cracking behaviour of a RC one-way slab under the combined effect of thermal, shrinkage and external loads. <i>Engineering Structures</i> , 2020, 212, 110493.	2.6	13

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37	Finite element based micro modelling of masonry walls subjected to fire exposure: Framework validation and structural implications. <i>Engineering Structures</i> , 2020, 213, 110545.	2.6	13
38	Longitudinal restraining devices for the evaluation of structural behaviour of cement-based materials: The past, present and prospective trends. <i>Strain</i> , 2020, 56, e12343.	1.4	7
39	Elastic Modulus Measurement Through Ambient Response Method. <i>Springer Tracts in Civil Engineering</i> , 2020, , 69-98.	0.3	1
40	PDMS Based Hybrid Sol-Gel Materials for Sensing Applications in Alkaline Environments: Synthesis and Characterization. <i>Polymers</i> , 2020, 12, 371.	2.0	9
41	A multi-physics modelling based on coupled diffusion equations to simulate the carbonation process. <i>Revista IBRACON De Estruturas E Materiais</i> , 2020, 13, .	0.3	0
42	Thermal Properties. <i>RILEM State-of-the-Art Reports</i> , 2019, , 47-67.	0.3	1
43	On-site Monitoring of Mass Concrete. <i>RILEM State-of-the-Art Reports</i> , 2019, , 307-355.	0.3	6
44	Alkali-silica reaction in concrete: Mechanisms, mitigation and test methods. <i>Construction and Building Materials</i> , 2019, 222, 903-931.	3.2	121
45	Consideration of Soil Temperature in the Modeling of Early-Age Mass Concrete Slab. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 603, 022095.	0.3	3
46	Hygro-mechanical modeling of restrained ring test: COST TU1404 benchmark. <i>Construction and Building Materials</i> , 2019, 229, 116543.	3.2	11
47	Quantification of impact of lime on mechanical behaviour of lime cement blended mortars for bedding joints in masonry systems. <i>Construction and Building Materials</i> , 2019, 229, 116884.	3.2	17
48	Influence of the incorporation of phase change materials on temperature development in mortar at early ages: Experiments and numerical simulation. <i>Construction and Building Materials</i> , 2019, 225, 1036-1051.	3.2	16
49	Thermo-Hygro-Mechanical Simulation of Cracking in Thick Restrained RC Members: Application to a 50 cm Thick Slab. <i>Journal of Advanced Concrete Technology</i> , 2019, 17, 489-505.	0.8	3
50	A new test setup for measuring early age coefficient of thermal expansion of concrete. <i>Cement and Concrete Composites</i> , 2019, 98, 14-28.	4.6	17
51	Mechanical properties of lime-cement masonry mortars in their early ages. <i>Materials and Structures/Materiaux Et Constructions</i> , 2019, 52, 1.	1.3	24
52	Intervened URM buildings with RC elements: typological characterisation and associated challenges. <i>Bulletin of Earthquake Engineering</i> , 2019, 17, 4987-5019.	2.3	10
53	Stiffness evolution of natural hydraulic lime mortars at early ages measured through EMM-ARM. <i>Construction and Building Materials</i> , 2019, 216, 405-415.	3.2	11
54	Assessment of behaviour and cracking susceptibility of cementitious systems under restrained conditions through ring tests: A critical review. <i>Cement and Concrete Composites</i> , 2019, 95, 137-153.	4.6	32

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55	Study of Early Age Stiffness Development in Lime-Cement Blended Mortars. RILEM Bookseries, 2019, , 397-404.	0.2	5
56	Temperature Control. RILEM State-of-the-Art Reports, 2019, , 153-179.	0.3	6
57	Estudo experimental do fluxo de umidade em argamassas de cal e cimento. Revista Materia, 2019, 24, .	0.1	0
58	Pull-out behaviour of glass-fibre reinforced polymer perforated plate connectors embedded in concrete. Part II: Prediction of load carrying capacity. Construction and Building Materials, 2018, 169, 142-164.	3.2	9
59	Energy benefits of cement-based plaster containing hybrid phase-change material. Proceedings of Institution of Civil Engineers: Construction Materials, 2018, 171, 117-125.	0.7	3
60	A systematic review of Prefabricated Enclosure Wall Panel Systems: Focus on technology driven for performance requirements. Sustainable Cities and Society, 2018, 40, 688-703.	5.1	21
61	COST TU1404 benchmark on macroscopic modelling of concrete and concrete structures at early age: Proof-of-concept stage. Construction and Building Materials, 2018, 174, 173-189.	3.2	19
62	Pull-out behaviour of Glass-Fibre Reinforced Polymer perforated plate connectors embedded in concrete. Part I: Experimental program. Construction and Building Materials, 2018, 162, 155-169.	3.2	14
63	Two-staged kinetics of moduli evolution with time of a lime treated soil under different curing temperatures. Transportation Geotechnics, 2018, 17, 133-140.	2.0	7
64	Concrete with fine and coarse recycled aggregates: E-modulus evolution, compressive strength and non-destructive testing at early ages. Construction and Building Materials, 2018, 193, 323-331.	3.2	62
65	The challenges of adopting BIM for setting and infrastructure management of University of Minho. E3S Web of Conferences, 2018, 48, 02002.	0.2	1
66	Microstructure-Based Prediction of the Elastic Behaviour of Hydrating Cement Pastes. Applied Sciences (Switzerland), 2018, 8, 442.	1.3	13
67	An integrated framework for multi-criteria optimization of thin concrete shells at early design stages. Advanced Engineering Informatics, 2018, 38, 330-342.	4.0	6
68	Analysis of the effect of shoring on the behaviour of reinforced concrete slabs. Construction and Building Materials, 2017, 143, 473-489.	3.2	4
69	Experimental analysis of the carbonation and humidity diffusion processes in aerial lime mortar. Construction and Building Materials, 2017, 148, 38-48.	3.2	34
70	A structural experimental technique to characterize the viscoelastic behavior of concrete under restrained deformations. Strain, 2017, 53, e12216.	1.4	10
71	Experimental validation of a framework for hygro-mechanical simulation of self-induced stresses in concrete. Cement and Concrete Composites, 2017, 80, 41-54.	4.6	19
72	Addition of biomass ash in concrete: Effects on E-Modulus, electrical conductivity at early ages and their correlation. Construction and Building Materials, 2017, 157, 1126-1132.	3.2	26

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73	Numerical Study on Restraints Effects in Massive Foundation Slabs. <i>Procedia Engineering</i> , 2017, 193, 226-233.	1.2	5
74	Viscoelastic response of an epoxy adhesive for construction since its early ages: Experiments and modelling. <i>Composites Part B: Engineering</i> , 2017, 116, 266-277.	5.9	28
75	A formulation to reduce mesh dependency in FE analyses of RC structures under imposed deformations. <i>Engineering Structures</i> , 2017, 132, 443-455.	2.6	7
76	Towards a robust and versatile method for monitoring E-modulus of concrete since casting: Enhancements and extensions of EMM-ARM. <i>Strain</i> , 2017, 53, e12232.	1.4	14
77	From LiDAR data towards HBIM for energy analysis. , 2017, , 224-241.		3
78	Testing Concrete E-modulus at Very Early Ages Through Several Techniques: An Inter-laboratory Comparison. <i>Strain</i> , 2016, 52, 91-109.	1.4	48
79	A Retrospective View of EMM-ARM: Application to Quality Control in Soil-improvement and Complementary Developments. <i>Procedia Engineering</i> , 2016, 143, 339-346.	1.2	7
80	Influence of temperature in the evolution of compressive strength and in its correlations with UPV in eco-concretes with recycled materials. <i>Construction and Building Materials</i> , 2016, 124, 276-286.	3.2	40
81	Assessment of the Small Strain Stiffness of a Sand-Cement Mixture by Cyclic and Dynamic Test Methods. , 2016, , .		1
82	Glycerol resulting from biodiesel production as an admixture for cement-based materials: an experimental study. <i>European Journal of Environmental and Civil Engineering</i> , 2016, , 1-17.	1.0	2
83	Influence of temperature on the curing of an epoxy adhesive and its influence on bond behaviour of NSM-CFRP systems. <i>Composites Part B: Engineering</i> , 2016, 89, 219-229.	5.9	43
84	Optimal behavior of responsive residential demand considering hybrid phase change materials. <i>Applied Energy</i> , 2016, 163, 81-92.	5.1	52
85	Experimental and numerical studies of hybrid PCM embedded in plastering mortar for enhanced thermal behaviour of buildings. <i>Energy</i> , 2016, 94, 250-261.	4.5	121
86	Simulation of Humidity Fields in Concrete: Experimental Validation and Parameter Estimation. <i>Journal of Advanced Concrete Technology</i> , 2015, 13, 214-229.	0.8	14
87	Continuous Monitoring of Concrete Mechanical Properties since an Early Age to Support Construction Phasing. , 2015, , .		5
88	Quality control and monitoring of NSM CFRP systems: E-modulus evolution of epoxy adhesive and its relation to the pull-out force. <i>Composites Part B: Engineering</i> , 2015, 75, 95-103.	5.9	11
89	Influence of casting condition on the anisotropy of the fracture properties of Steel Fibre Reinforced Self-Compacting Concrete (SFRSCC). <i>Cement and Concrete Composites</i> , 2015, 59, 60-76.	4.6	27
90	Assessing the feasibility of impregnating phase change materials in lightweight aggregate for development of thermal energy storage systems. <i>Construction and Building Materials</i> , 2015, 89, 48-59.	3.2	92

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91	Monitoring the early stiffness development in epoxy adhesives for structural strengthening. International Journal of Adhesion and Adhesives, 2015, 59, 77-85.	1.4	14
92	Hygrometric Assessment of Internal Relative Humidity in Concrete: Practical Application Issues. Journal of Advanced Concrete Technology, 2014, 12, 250-265.	0.8	19
93	Early-age behaviour of the concrete surrounding a turbine spiral case: Monitoring and thermo-mechanical modelling. Engineering Structures, 2014, 81, 327-340.	2.6	28
94	Thermal behavior of cement based plastering mortar containing hybrid microencapsulated phase change materials. Energy and Buildings, 2014, 84, 526-536.	3.1	80
95	Continuous monitoring of sandâ€™cement stiffness starting from layer compaction with a resonant frequency-based method: Issues on mould geometry and sampling. Soils and Foundations, 2014, 54, 56-66.	1.3	11
96	Estimation of the specific enthalpyâ€™temperature functions for plastering mortars containing hybrid mixes of phase change materials. International Journal of Energy and Environmental Engineering, 2014, 5, 1.	1.3	9
97	Application of air cooled pipes for reduction of early age cracking risk in a massive RC wall. Engineering Structures, 2014, 62-63, 148-163.	2.6	28
98	Comparison Between Different Experimental Techniques for Stiffness Monitoring of Cement Pastes. Journal of Advanced Concrete Technology, 2014, 12, 46-61.	0.8	17
99	Tube-jack testing for irregular masonry walls: Prototype development and testing. NDT and E International, 2013, 58, 24-35.	1.7	9
100	Development of sandwich panels combining fibre reinforced concrete layers and fibre reinforced polymer connectors. Part II: Evaluation of mechanical behaviour. Composite Structures, 2013, 105, 460-470.	3.1	27
101	Development of sandwich panels combining fibre reinforced concrete layers and fibre reinforced polymer connectors. Part I: Conception and pull-out tests. Composite Structures, 2013, 105, 446-459.	3.1	45
102	Modelling of cement hydration in concrete structures with hybrid finite elements. Finite Elements in Analysis and Design, 2013, 77, 16-30.	1.7	19
103	Continuous stiffness assessment of cement-stabilised soils from early age. Geotechnique, 2013, 63, 1419-1432.	2.2	23
104	Thermal enhancement of plastering mortars with Phase Change Materials: Experimental and numerical approach. Energy and Buildings, 2012, 49, 16-27.	3.1	129
105	Measurement of the E-modulus of cement pastes and mortars since casting, using a vibration based technique. Materials and Structures/Materiaux Et Constructions, 2012, 45, 81-92.	1.3	37
106	Identification of the percolation threshold in cementitious pastes by monitoring the E-modulus evolution. Cement and Concrete Composites, 2012, 34, 739-745.	4.6	13
107	Continuous monitoring of concrete E-modulus since casting based on modal identification: A case study for in situ application. Cement and Concrete Composites, 2012, 34, 881-890.	4.6	28
108	E-modulus evolution and its relation to solids formation of pastes from commercial cements. Cement and Concrete Research, 2012, 42, 928-936.	4.6	17

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109	Influence of shrinkage reducing admixtures on distinct SCC mix compositions. Construction and Building Materials, 2012, 35, 304-312.	3.2	27
110	The Use of Continuous System Identification for Evaluation of Concrete E-Modulus Evolution: Laboratory and Field Applications. Conference Proceedings of the Society for Experimental Mechanics, 2012, , 405-412.	0.3	0
111	Continuous Stiffness Monitoring of Cemented Sand through Resonant Frequency. , 2011, , .		6
112	Thermo-hygro-mechanical modelling of self-induced stresses during the service life of RC structures. Engineering Structures, 2011, 33, 3442-3453.	2.6	38
113	Thermography as a technique for monitoring early age temperatures of hardening concrete. Construction and Building Materials, 2011, 25, 4232-4240.	3.2	25
114	Influence of the cementitious paste composition on the E-modulus and heat of hydration evolutions. Cement and Concrete Research, 2011, 41, 799-807.	4.6	31
115	Measurement of concrete E-modulus evolution since casting: A novel method based on ambient vibration. Cement and Concrete Research, 2010, 40, 1096-1105.	4.6	75
116	Identification of early-age concrete temperatures and strains: Monitoring and numerical simulation. Cement and Concrete Composites, 2009, 31, 369-378.	4.6	78
117	Temperatures and stresses due to cement hydration on the R/C foundation of a wind tower A case study. Engineering Structures, 2008, 30, 2392-2400.	2.6	40
118	Drying induced moisture losses from mortar to the environment. Part II: numerical implementation. Materials and Structures/Materiaux Et Constructions, 2007, 40, 813-825.	1.3	13
119	Drying induced moisture losses from mortar to the environment. Part I: experimental research. Materials and Structures/Materiaux Et Constructions, 2007, 40, 801-811.	1.3	26
120	Modelling of concrete at early ages: Application to an externally restrained slab. Cement and Concrete Composites, 2006, 28, 572-585.	4.6	121
121	THERMO-MECHANICAL ANALYSIS OF YOUNG CONCRETE. , 2006, , 91-97.		0
122	Assessing Viscoelastic Properties of Concrete during its Early Ages through Forced Dynamic Excitation of Test Beams. Key Engineering Materials, 0, 711, 103-110.	0.4	1
123	Numerical benchmark campaign of COST Action TU1404 microstructural modelling. RILEM Technical Letters, 0, 2, 99-107.	0.0	14