

# Arnaud Perrot

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5796250/publications.pdf>

Version: 2024-02-01

96  
papers

3,529  
citations

186209

28  
h-index

149623

56  
g-index

112  
all docs

112  
docs citations

112  
times ranked

1630  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural built-up of cement-based materials used for 3D-printing extrusion techniques. <i>Materials and Structures/Materiaux Et Constructions</i> , 2016, 49, 1213-1220.	1.3	569
2	Extrusion-based additive manufacturing with cement-based materials – Production steps, processes, and their underlying physics: A review. <i>Cement and Concrete Research</i> , 2020, 132, 106037.	4.6	297
3	Particle-bed 3D printing in concrete construction – Possibilities and challenges. <i>Cement and Concrete Research</i> , 2018, 112, 50-65.	4.6	274
4	Yield stress and bleeding of fresh cement pastes. <i>Cement and Concrete Research</i> , 2012, 42, 937-944.	4.6	196
5	3D printing of earth-based materials: Processing aspects. <i>Construction and Building Materials</i> , 2018, 172, 670-676.	3.2	148
6	Prediction of lateral form pressure exerted by concrete at low casting rates. <i>Materials and Structures/Materiaux Et Constructions</i> , 2015, 48, 2315-2322.	1.3	101
7	Non-linear modeling of yield stress increase due to SCC structural build-up at rest. <i>Cement and Concrete Research</i> , 2017, 92, 92-97.	4.6	86
8	Processing the Couette viscometry data using a Bingham approximation in shear rate calculation. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2008, 154, 31-38.	1.0	71
9	Use of ram extruder as a combined rheo-tribometer to study the behaviour of high yield stress fluids at low strain rate. <i>Rheologica Acta</i> , 2012, 51, 743-754.	1.1	69
10	Extrusion of cement-based materials - an overview. <i>RILEM Technical Letters</i> , 0, 3, 91-97.	0.0	68
11	A new look at the measurement of cementitious paste setting by Vicat test. <i>Cement and Concrete Research</i> , 2010, 40, 681-686.	4.6	67
12	Underwater 3D printing of cement-based mortar. <i>Construction and Building Materials</i> , 2019, 214, 458-467.	3.2	64
13	Nailing of Layers: A Promising Way to Reinforce Concrete 3D Printing Structures. <i>Materials</i> , 2020, 13, 1518.	1.3	61
14	Prediction of extrusion load and liquid phase filtration during ram extrusion of high solid volume fraction pastes. <i>Powder Technology</i> , 2013, 249, 258-268.	2.1	57
15	Structural build-up of rigid fiber reinforced cement-based materials. <i>Materials and Structures/Materiaux Et Constructions</i> , 2013, 46, 1561-1568.	1.3	56
16	Permeability measurement of fresh cement paste. <i>Cement and Concrete Research</i> , 2011, 41, 330-338.	4.6	55
17	A nonlocal Fourier's law and its application to the heat conduction of one-dimensional and two-dimensional thermal lattices. <i>Comptes Rendus - Mecanique</i> , 2016, 344, 388-401.	2.1	55
18	From analytical methods to numerical simulations: A process engineering toolbox for 3D concrete printing. <i>Cement and Concrete Composites</i> , 2021, 122, 104164.	4.6	55

#	ARTICLE	IF	CITATIONS
19	Properties of an industrial extruded HDPE-WPC: The effect of the size distribution of wood flour particles. <i>Construction and Building Materials</i> , 2018, 162, 543-552.	3.2	54
20	Field validation of models for predicting lateral form pressure exerted by SCC. <i>Cement and Concrete Composites</i> , 2014, 54, 70-79.	4.6	50
21	Penetration of cement pastes into sand packings during 3D printing: analytical and experimental study. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018, 51, 1.	1.3	49
22	Ram extrusion force for a frictional plastic material: model prediction and application to cement paste. <i>Rheologica Acta</i> , 2006, 45, 457-467.	1.1	46
23	Mortar physical properties evolution in extrusion flow. <i>Rheologica Acta</i> , 2007, 46, 1065-1073.	1.1	45
24	SCC formwork pressure: Influence of steel rebars. <i>Cement and Concrete Research</i> , 2009, 39, 524-528.	4.6	45
25	Cement-based mixes: Shearing properties and pore pressure. <i>Cement and Concrete Research</i> , 2012, 42, 139-147.	4.6	42
26	Cellulose ethers and cement paste permeability. <i>Cement and Concrete Research</i> , 2015, 72, 117-127.	4.6	37
27	Processing the Vane Shear Flow Data from Couette Analogy. <i>Applied Rheology</i> , 2008, 18, 34037-1-34037-6.	3.5	36
28	A novel settling and structural build-up measurement method. <i>Measurement Science and Technology</i> , 2008, 19, 105702.	1.4	31
29	Linking rheological and geotechnical properties of kaolinite materials for earthen construction. <i>Materials and Structures/Materiaux Et Constructions</i> , 2016, 49, 4647-4655.	1.3	31
30	Design of clay/cement mixtures for extruded building products. <i>Materials and Structures/Materiaux Et Constructions</i> , 2013, 46, 999-1010.	1.3	30
31	A novel pull-out device used to study the influence of pressure during processing of cement-based material reinforced with coir. <i>Construction and Building Materials</i> , 2015, 78, 224-233.	3.2	30
32	Strategies for optimizing the mechanical strengths of raw earth-based mortars. <i>Construction and Building Materials</i> , 2018, 167, 496-504.	3.2	30
33	Hydro-mechanical properties of fresh cement pastes containing polycarboxylate superplasticizer. <i>Cement and Concrete Research</i> , 2013, 53, 221-228.	4.6	29
34	Mechanical enhancement of cement-stabilized soil by flax fibre reinforcement and extrusion processing. <i>Materials and Structures/Materiaux Et Constructions</i> , 2016, 49, 1143-1156.	1.3	29
35	Slipping zone location in squeeze flow. <i>Rheologica Acta</i> , 2006, 45, 444-448.	1.1	25
36	Effect of mix proportions on rheology and permeability of cement grouts containing viscosity modifying admixture. <i>Construction and Building Materials</i> , 2019, 212, 687-697.	3.2	25

#	ARTICLE	IF	CITATIONS
37	Assessment of asymmetrical rheological behavior of cementitious material for 3D printing application. <i>Cement and Concrete Research</i> , 2021, 140, 106305.	4.6	24
38	Material-process interactions in particle bed 3D printing and the underlying physics. <i>Cement and Concrete Research</i> , 2022, 156, 106748.	4.6	23
39	A study on the limitations of a vane rheometer for mineral suspensions using image processing. <i>Rheologica Acta</i> , 2017, 56, 351-367.	1.1	22
40	Optimisation of rheological parameters, induced bleeding, permeability and mechanical properties of supersulfated cement grouts. <i>Construction and Building Materials</i> , 2020, 262, 120078.	3.2	21
41	Assessing the fresh properties of printable cement-based materials: High potential tests for quality control. <i>Cement and Concrete Research</i> , 2022, 158, 106836.	4.6	20
42	Toward modeling anisotropic yield stress and consistency induced by fiber in fiber-reinforced viscoplastic fluids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2015, 220, 69-76.	1.0	19
43	Vibro-extrusion: a new forming process for cement-based materials. <i>Advances in Cement Research</i> , 2009, 21, 125-133.	0.7	18
44	Combined and synergic effect of algerian natural fibres and biopolymers on the reinforcement of extruded raw earth. <i>Construction and Building Materials</i> , 2021, 289, 123211.	3.2	18
45	Effect of coarse particle volume fraction on the hydraulic conductivity of fresh cement based material. <i>Materials and Structures/Materiaux Et Constructions</i> , 2015, 48, 2291-2297.	1.3	17
46	Study of tribological behaviour of fresh mortar against a rigid plane wall. <i>European Journal of Environmental and Civil Engineering</i> , 2013, 17, 419-429.	1.0	14
47	Rheological properties of calcium sulfate suspensions. <i>Cement and Concrete Research</i> , 2015, 76, 70-81.	4.6	13
48	Penetration of Cement Pastes into Particle-Beds: A Comparison of Penetration Models. <i>Materials</i> , 2021, 14, 389.	1.3	13
49	Effects of mix design parameters on consolidation behaviour of fresh cement-based materials. <i>Materials and Structures/Materiaux Et Constructions</i> , 2017, 50, 1.	1.3	12
50	Effect of metakaolin and natural fibres on three-dimensional printing mortar. <i>Proceedings of Institution of Civil Engineers: Construction Materials</i> , 2021, 174, 115-128.	0.7	12
51	Influence of nanoclay on the fresh and rheological behaviour of 3D printing mortar. <i>Materials Today: Proceedings</i> , 2022, 58, 1063-1068.	0.9	12
52	Fluid intrusion in powder beds for selective cement activation – An experimental and analytical study. <i>Cement and Concrete Research</i> , 2022, 156, 106771.	4.6	12
53	Determination of the consolidation coefficient of low compressibility materials: application to fresh cement-based materials. <i>Materials and Structures/Materiaux Et Constructions</i> , 2015, 48, 1475-1483.	1.3	11
54	Field-oriented tests to evaluate the workability of cob and adobe. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018, 51, 1.	1.3	11

#	ARTICLE	IF	CITATIONS
55	Additive Manufacturing of Cementitious Materials by Selective Paste Intrusion: Numerical Modeling of the Flow Using a 2D Axisymmetric Phase Field Method. <i>Materials</i> , 2020, 13, 5024.	1.3	11
56	Effect of bio-stabilizers on capillary absorption and water vapour transfer into raw earth. <i>Materials and Structures/Materiaux Et Constructions</i> , 2020, 53, 1.	1.3	11
57	Water absorption measurements on WPCs: Assessment of size and direction dependencies in order to design fast and accurate quality control tests. <i>Polymer Testing</i> , 2019, 77, 105899.	2.3	10
58	Digital Fabrication with Cement-Based Materials: Process Classification and Case Studies. <i>RILEM State-of-the-Art Reports</i> , 2022, , 11-48.	0.3	10
59	Static and Dynamic Behaviors of Microstructured Membranes within Nonlocal Mechanics. <i>Journal of Engineering Mechanics - ASCE</i> , 2018, 144, .	1.6	9
60	The plate test carried out on fresh cement-based materials:How and why?. <i>Cement and Concrete Research</i> , 2017, 93, 1-7.	4.6	8
61	Tensile Characteristics of Coconut Fibers Reinforced Mortar Composites. <i>Advanced Materials Research</i> , 0, 651, 269-273.	0.3	7
62	On the failure of a discrete axial chain using a continualized nonlocal Continuum Damage Mechanics approach. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2016, 40, 436-466.	1.7	7
63	Processing methods for optimising the mechanical strength of raw earth-based materials. <i>Proceedings of Institution of Civil Engineers: Construction Materials</i> , 2021, 174, 150-160.	0.7	7
64	Effect of Metakaolin, Fly Ash and Polypropylene Fibres on Fresh and Rheological Properties of 3D Printing Based Cement Materials. <i>RILEM Bookseries</i> , 2020, , 206-215.	0.2	7
65	Poiseuille flow of nonlocal microstructured fluid. <i>Mechanics Research Communications</i> , 2014, 59, 51-57.	1.0	6
66	Nonlocal continuum analysis of a nonlinear uniaxial elastic lattice system under non-uniform axial load. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2016, 83, 378-388.	1.3	6
67	Unconventional tools for the study of the flow properties of concrete equivalent mortar based on recycled concrete aggregates. <i>Environmental Science and Pollution Research</i> , 2022, 29, 26739-26758.	2.7	6
68	Effect of Coconut Fibers Addition to early Age Unfired Soil Lime Bricks Strength. <i>Key Engineering Materials</i> , 0, 594-595, 471-476.	0.4	5
69	Effect of Fibers Content on the Tensile Properties of Coconut Fibers Reinforced Cement Mortar Composites. <i>Advanced Materials Research</i> , 0, 742, 92-97.	0.3	5
70	Experimental approach on a moving formwork. <i>Construction and Building Materials</i> , 2021, 270, 121472.	3.2	5
71	Gravity Driven Tests to Assess Mechanical Properties of Printable Cement-Based Materials at Fresh State. <i>RILEM Bookseries</i> , 2020, , 280-289.	0.2	5
72	Gravity induced flow to characterize rheological properties of printable cement-based materials. <i>RILEM Technical Letters</i> , 0, 5, 150-156.	0.0	5

#	ARTICLE	IF	CITATIONS
73	Digital Fabrication with Cement-Based Materials: Underlying Physics. RILEM State-of-the-Art Reports, 2022, , 49-98.	0.3	5
74	Microfibrillated cellulose as a new approach to develop lightweight cementitious composites: Rheological, Mechanical, and microstructure perspectives. Construction and Building Materials, 2022, 342, 128008.	3.2	5
75	Mortar pore pressure prediction during the first hours of cement hydration. Cement and Concrete Composites, 2021, 119, 103998.	4.6	4
76	Characterization of the shear behavior of mineral suspensions at controlled negative pressure conditions. Powder Technology, 2020, 364, 60-69.	2.1	3
77	Valorization of glass powder waste, crushed and dune sands in the mix design of ultra-high performance fiber reinforced concrete: Assessing effect of waste variability. Materiaux Et Techniques, 2021, 109, 103.	0.3	3
78	Impact of the nature of fibers on the physicommechanical behavior and durability of cement matrices. Iranian Journal of Science and Technology - Transactions of Civil Engineering, 2021, 45, 1467-1482.	1.0	3
79	Printable Cement-Based Materials: Fresh Properties Measurements and Control. RILEM State-of-the-Art Reports, 2022, , 99-136.	0.3	3
80	Extrusion Criterion for Firm Cement-Based Materials. AIP Conference Proceedings, 2008, , .	0.3	2
81	Effect of Metallic Fibers on the Print Quality and Strength of 3D Printed Concrete. RILEM Bookseries, 2020, , 439-448.	0.2	2
82	Erosion Behaviour of Bio-Stabilised Earthen Materials. , 0, , .		2
83	Mechanical Performance of 3-D Printed Concrete Containing Fly Ash, Metakaolin and Nanoclay. RILEM Bookseries, 2022, , 111-116.	0.2	2
84	Energy distribution in the squeezing of particles in concentrated suspension. Granular Matter, 2008, 10, 81-87.	1.1	1
85	Couette Rheometry from Differential Approach: Comparative Study and Experimental Application. AIP Conference Proceedings, 2008, , .	0.3	1
86	A localization analysis of a non-uniform damage lattice in presence of strength gradient. International Journal of Fracture, 2018, 210, 29-43.	1.1	1
87	Multi-Scale Analysis to Study the Rheological Behavior of Natural Mud Suspensions. AIP Conference Proceedings, 2008, , .	0.3	0
88	Squeezing Flow of Suspensions: Flow Regime Evaluation from Energy Approach. AIP Conference Proceedings, 2008, , .	0.3	0
89	Two-scale nonlocal shear rate formulation of Bingham plastic fluid. Applied Mathematical Modelling, 2015, 39, 4075-4094.	2.2	0
90	Nonlocal Continuum Damage Mechanics Approach of a Discrete Axial Chain under Non-Uniform Axial Load. Applied Mechanics and Materials, 2015, 784, 317-324.	0.2	0

#	ARTICLE	IF	CITATIONS
91	Scale effects in the static response of a one-dimensional quasi-brittle damage lattice. European Journal of Environmental and Civil Engineering, 2016, 20, 1233-1248.	1.0	0
92	The Plate Test carried out on Fresh Self- Compacting Concrete. , 2016, , .		0
93	Effect of Limestone Powder Addition Quality on SCC Rheology. RILEM Bookseries, 2020, , 500-507.	0.2	0
94	Linseed Oil and Xanthan Gum: Promising Stabilisers for Earthen Building Materials. , 0, , .		0
95	M&S highlight: Le et al. (2012), Mix design and fresh properties for high-performance printing concrete. Materials and Structures/Materiaux Et Constructions, 2022, 55, 1.	1.3	0
96	Bio-Stabilised Earthen Blocks: A Critical Study on Compression Tests of Immersed Samples. , 0, , .		0