

# Pierre J J Dumont

## List of Publications by Year in descending order

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65  
papers

1,621  
citations

257101

24  
h-index

315357

38  
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66  
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66  
docs citations

66  
times ranked

1469  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rheological response of compressible SMCs under various deformation kinematics: Experimental aspects and simple modelling approach. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 154, 106774.	3.8	4
2	In situ 3D observations of capillary-driven flows in parallel arrangements of rigid fibres using X-ray microtomography. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 157, 106941.	3.8	2
3	Statistical analysis of the crack sensitivity of fiber networks. <i>International Journal of Solids and Structures</i> , 2021, 208-209, 133-140.	1.3	1
4	Manufacturing of starch-based materials using ultrasonic compression moulding (UCM): toward a structural application. <i>Heliyon</i> , 2021, 7, e06482.	1.4	5
5	Fabrication of Foldable Composite Structures Obtained by Selective Curing of Prepregs Made of Long-fibre Reinforcements Impregnated with UV-curable Resin System. <i>Applied Composite Materials</i> , 2021, 28, 1781-1797.	1.3	4
6	On the role of fibre bonds on the elasticity of low-density papers: a micro-mechanical approach. <i>Cellulose</i> , 2021, 28, 9919-9941.	2.4	6
7	Permeability of flax fibre mats: Numerical and theoretical prediction from 3D X-ray microtomography images. <i>Composites Part A: Applied Science and Manufacturing</i> , 2021, 151, 106644.	3.8	7
8	Physico-Chemical and Thermal Characterization of Some Lignocellulosic Fibres: <i>Ananas comosus</i> (AC), <i>Neuropeltis acuminatas</i> (NA) and <i>Rhectophyllum camerunense</i> (RC). <i>Journal of Minerals and Materials Characterization and Engineering</i> , 2020, 08, 205-222.	0.1	15
9	Microstructural and mechanical properties of biocomposites made of native starch granules and wood fibers. <i>Composites Science and Technology</i> , 2019, 182, 107755.	3.8	16
10	Ultrasonic welding of 100% lignocellulosic papers. <i>Journal of Materials Science</i> , 2019, 54, 12938-12950.	1.7	5
11	Fibre kinematics in dilute non-Newtonian fibre suspensions during confined and lubricated squeeze flow: Direct numerical simulation and analytical modelling. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2019, 273, 104187.	1.0	10
12	Influence of the local mass density variation on the fracture behavior of fiber network materials. <i>International Journal of Solids and Structures</i> , 2018, 138, 236-244.	1.3	11
13	Ice-Templated Porous Nanocellulose-Based Materials: Current Progress and Opportunities for Materials Engineering. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2463.	1.3	39
14	Cellulose crystals plastify by localized shear. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 7260-7265.	3.3	43
15	Three-dimensional visualization and quantification of the fracture mechanisms in sparse fibre networks using multiscale X-ray microtomography. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018, 474, 20180175.	1.0	9
16	Crumpled paper sheets: Low-cost biobased cellular materials for structural applications. <i>Materials and Design</i> , 2017, 136, 150-164.	3.3	13
17	Numerical modeling of high aspect ratio flexible fibers in inertial flows. <i>Physics of Fluids</i> , 2017, 29, .	1.6	25
18	Shear behavior of thermoformed woven-textile thermoplastic prepregs: An analysis combining bias-extension test and X-ray microtomography. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	0

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19	Tensile behaviour of uncured sheet moulding compounds: Rheology and flow-induced microstructures. Composites Part A: Applied Science and Manufacturing, 2017, 101, 459-470.	3.8	7
20	3D in situ observations of the compressibility and pore transport in Sheet Moulding Compounds during the early stages of compression moulding. Composites Part A: Applied Science and Manufacturing, 2017, 92, 51-61.	3.8	25
21	On the origins of the elasticity of cellulose nanofiber nanocomposites and nanopapers: a micromechanical approach. RSC Advances, 2016, 6, 47258-47271.	1.7	20
22	Cellulose nanofibril foams: Links between ice-templating conditions, microstructures and mechanical properties. Materials and Design, 2016, 104, 376-391.	3.3	141
23	3D real-time and in situ characterisation of fibre kinematics in dilute non-Newtonian fibre suspensions during confined and lubricated compression flow. Composites Science and Technology, 2016, 134, 258-266.	3.8	21
24	A Method to Measure Moisture Induced Swelling Properties of a Single Wood Cell. Experimental Mechanics, 2016, 56, 723-733.	1.1	32
25	Effectiveness of thermo-compression for manufacturing native starch bulk materials. Journal of Materials Science, 2016, 51, 5146-5159.	1.7	9
26	Homogeneous and heterogeneous rheology and flow-induced microstructures of a fresh fiber-reinforced mortar. Cement and Concrete Research, 2016, 82, 130-141.	4.6	13
27	Micro-mechanics of electrostatically stabilized suspensions of cellulose nanofibrils under steady state shear flow. Soft Matter, 2016, 12, 1721-1735.	1.2	34
28	Rheology of Highly Concentrated Fiber Suspensions. , 2015, , 119-166.		5
29	Heterogeneous flow kinematics of cellulose nanofibril suspensions under shear. Soft Matter, 2015, 11, 4742-4755.	1.2	70
30	3D analysis of paper microstructures at the scale of fibres and bonds. Cellulose, 2015, 22, 1517-1539.	2.4	33
31	Evaluating the Effectiveness of Using Flexography Printing for Manufacturing Catalyst-Coated Membranes for Fuel Cells. Fuel Cells, 2014, 14, 614-625.	1.5	4
32	Approximation of mode I crack-tip displacement fields by a gradient enhanced elasticity theory. Engineering Fracture Mechanics, 2014, 117, 1-11.	2.0	19
33	Finding fibres and their contacts within 3D images of disordered fibrous media. Composites Science and Technology, 2013, 89, 202-210.	3.8	48
34	How to Prepare SMC and BMC-like Compounds to Perform Relevant Rheological Experiments?. Applied Composite Materials, 2013, 20, 157-169.	1.3	8
35	Analytical post-buckling model of corrugated board panels using digital image correlation measurements. Composite Structures, 2013, 101, 243-254.	3.1	18
36	Rheometry of compression moulded fibre-reinforced polymer composites: Rheology, compressibility, and friction forces with mould surfaces. Composites Part A: Applied Science and Manufacturing, 2012, 43, 2107-2119.	3.8	36

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37	Microstructure and deformation micromechanisms of concentrated fiber bundle suspensions: An analysis combining x-ray microtomography and pull-out tests. <i>Journal of Rheology</i> , 2012, 56, 593-623.	1.3	20
38	Crack growth in planar elastic fiber materials. <i>International Journal of Solids and Structures</i> , 2012, 49, 1900-1907.	1.3	27
39	In-plane conduction of polymer composite plates reinforced with architected networks of Copper fibres. <i>Journal of Materials Science</i> , 2012, 47, 2932-2942.	1.7	30
40	Towards 3D analysis of pulp fibre networks at the fibre and bond levels. <i>Nordic Pulp and Paper Research Journal</i> , 2012, 27, 245-255.	0.3	23
41	Analysis of the hygroexpansion of a lignocellulosic fibrous material by digital correlation of images obtained by X-ray synchrotron microtomography: application to a folding box board. <i>Journal of Materials Science</i> , 2011, 46, 4756-4769.	1.7	33
42	Towards the 3D in situ characterisation of deformation micro-mechanisms within a compressed bundle of fibres. <i>Composites Science and Technology</i> , 2011, 71, 480-488.	3.8	85
43	Surface stress and strain fields on compressed panels of corrugated board boxes. An experimental analysis by using Digital Image Stereocorrelation. <i>Composite Structures</i> , 2011, 93, 2861-2873.	3.1	27
44	Some experimental aspects of the compression behaviour of boxes made up of Gâ€flute corrugated boards. <i>Packaging Technology and Science</i> , 2010, 23, 69-89.	1.3	9
45	Lubricated compression and X-ray microtomography to analyse the rheology of a fibre-reinforced mortar. <i>Rheologica Acta</i> , 2010, 49, 221-235.	1.1	31
46	Towards the simulation of mould filling with polymer composites reinforced with mineral fillers and short fibres. <i>International Journal of Material Forming</i> , 2010, 3, 1313-1326.	0.9	17
47	Mechanical integrity of thin inorganic coatings on polymer substrates under quasi-static, thermal and fatigue loadings. <i>Thin Solid Films</i> , 2010, 519, 1729-1737.	0.8	53
48	Influences of roll-to-roll process and polymer substrate anisotropies on the tensile failure of thin oxide films. <i>Thin Solid Films</i> , 2010, 518, 6984-6992.	0.8	12
49	A numerical analysis of the evolution of bundle orientation in concentrated fibre-bundle suspensions. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2009, 160, 76-92.	1.0	25
50	Quelques aspects du comportement hygromÃ©canique du papier. <i>Mecanique Et Industries</i> , 2009, 10, 43-48.	0.2	0
51	Separation of the polymer matrix and the fibrous reinforcement during compression moulding of Glass Mat Thermoplastics (GMT). <i>International Journal of Material Forming</i> , 2008, 1, 929-932.	0.9	8
52	Lubricated compression of BMC, a concentrated and fibre-reinforced granular polymer suspension. <i>Rheologica Acta</i> , 2008, 47, 677-688.	1.1	13
53	Evaluation of toughness by finite fracture mechanics from crack onset strain of brittle coatings on polymers. <i>Theoretical and Applied Fracture Mechanics</i> , 2008, 49, 151-157.	2.1	38
54	X-ray phase contrast microtomography for the analysis of the fibrous microstructure of SMC composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2008, 39, 91-103.	3.8	87

#	ARTICLE	IF	CITATIONS
55	23.1: <i>Invited Paper</i>: Models and Experiments of Mechanical Integrity for Flexible Displays. Digest of Technical Papers SID International Symposium, 2008, 39, 310-313.	0.1	3
56	Compression moulding of SMC: In situ experiments, modelling and simulation. Composites Part A: Applied Science and Manufacturing, 2007, 38, 353-368.	3.8	72
57	Processing, characterisation and rheology of transparent concentrated fibre-bundle suspensions. Rheologica Acta, 2007, 46, 639-651.	1.1	34
58	Intrinsic, thermal and hygroscopic residual stresses in thin gas-barrier films on polymer substrates. Thin Solid Films, 2007, 515, 7437-7441.	0.8	24
59	Evaluation of interfacial stress transfer efficiency by coating fragmentation test. Mechanics of Materials, 2007, 39, 834-844.	1.7	52
60	Finite element implementation of a two-phase model for compression molding of composites. Revue Europeenne Des Elements, 2005, 14, 885-902.	0.1	4
61	Rheology of highly concentrated planar fiber suspensions. Journal of Rheology, 2005, 49, 1029-1058.	1.3	42
62	Une approche multi-Ã©chelle de la rhÃ©ologie des suspensions concentrÃ©es de fibres. Revue Des Composites Et Des Materiaux Avances, 2005, 15, 355-369.	0.2	1
63	Anisotropic viscous behavior of sheet molding compounds (SMC) during compression molding. International Journal of Plasticity, 2003, 19, 625-646.	4.1	65
64	Un modÃ©le biphasique pour simuler la mise en forme par compression des composites Ã fibres courtes. Revue Des Composites Et Des Materiaux Avances, 2002, 12, 477-497.	0.2	0
65	Analysis of the Strain and Stress Fields of Cardboard Box during Compression by 3D Digital Image Correlation. Applied Mechanics and Materials, 0, 24-25, 103-108.	0.2	9