

Sylvain Drapier

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

1,405
citations

279798

23
h-index

361022

35
g-index

70
all docs

70
docs citations

70
times ranked

997
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite-element investigation of the compressive strength of non-crimp-fabric-based composites. <i>Composites Science and Technology</i> , 1999, 59, 1287-1297.	7.8	75
2	Characterization of friction properties at the workmaterial/cutting tool interface during the machining of randomly structured carbon fibers reinforced polymer with carbide tools under dry conditions. <i>Tribology International</i> , 2011, 44, 2050-2058.	5.9	56
3	Experimental assessment and analytical 2D predictions of the stocking pressures induced on a model leg by Medical Compressive Stockings. <i>Journal of Biomechanics</i> , 2006, 39, 3017-3025.	2.1	55
4	Nonlinear interaction of geometrical and material properties in sandwich beam instabilities. <i>International Journal of Solids and Structures</i> , 2002, 39, 3717-3739.	2.7	53
5	Specific features of flax fibres used to manufacture composite materials. <i>International Journal of Material Forming</i> , 2019, 12, 1023-1052.	2.0	53
6	Influence of the stitching density on the transverse permeability of non-crimped new concept (NC2) multiaxial reinforcements: measurements and predictions. <i>Composites Science and Technology</i> , 2002, 62, 1979-1991.	7.8	52
7	First applications of a novel unified model for global and local buckling of sandwich columns. <i>European Journal of Mechanics, A/Solids</i> , 2002, 21, 683-701.	3.7	49
8	Numerical modelling of liquid infusion into fibrous media undergoing compaction. <i>European Journal of Mechanics, A/Solids</i> , 2008, 27, 647-661.	3.7	48
9	A finite-element investigation of the interlaminar shear behaviour of non-crimp-fabric-based composites. <i>Composites Science and Technology</i> , 1999, 59, 2351-2362.	7.8	47
10	A structural approach of plastic microbuckling in long fibre composites: comparison with theoretical and experimental results. <i>International Journal of Solids and Structures</i> , 2001, 38, 3877-3904.	2.7	46
11	Capillary effects on flax fibers – Modification and characterization of the wetting dynamics. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015, 77, 257-265.	7.6	43
12	Mixed Experimental and Numerical Approach for Characterizing the Biomechanical Response of the Human Leg Under Elastic Compression. <i>Journal of Biomechanical Engineering</i> , 2010, 132, 031006.	1.3	42
13	Capillary wicking in a fibrous reinforcement – Orthotropic issues to determine the capillary pressure components. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015, 77, 133-141.	7.6	38
14	Surface characterisation and wetting properties of single basalt fibres. <i>Composites Part B: Engineering</i> , 2017, 109, 72-81.	12.0	35
15	Structure effect and microbuckling. <i>Composites Science and Technology</i> , 1996, 56, 861-867.	7.8	34
16	Characterization of transient through-thickness permeabilities of Non Crimp New Concept (NC2) multiaxial fabrics. <i>Composites Part A: Applied Science and Manufacturing</i> , 2005, 36, 877-892.	7.6	34
17	Wetting and swelling property modifications of elementary flax fibres and their effects on the Liquid Composite Molding process. <i>Composites Part A: Applied Science and Manufacturing</i> , 2017, 97, 31-40.	7.6	34
18	Combining a level-set method and a mixed stabilized P1/P1 formulation for coupling Stokes–Darcy flows. <i>International Journal for Numerical Methods in Fluids</i> , 2012, 69, 459-480.	1.6	33

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19	Towards a numerical model of the compressive strength for long fibre composites. <i>European Journal of Mechanics, A/Solids</i> , 1999, 18, 69-92.	3.7	31
20	Monitoring the resin infusion manufacturing process under industrial environment using distributed sensors. <i>Journal of Composite Materials</i> , 2012, 46, 691-706.	2.4	30
21	Finite Element Simulation of Mass Transport During Sintering of a Granular Packing. Part I. Surface and Lattice Diffusions. <i>Journal of the American Ceramic Society</i> , 2012, 95, 2398-2405.	3.8	30
22	Closed-form solution for the cross-section warping in short beams under three-point bending. <i>Composite Structures</i> , 2001, 52, 233-246.	5.8	29
23	Capillary wicking in flax fabrics – Effects of swelling in water. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 498, 176-184.	4.7	27
24	3D finite element simulation of the matter flow by surface diffusion using a level set method. <i>International Journal for Numerical Methods in Engineering</i> , 2011, 86, 845-861.	2.8	24
25	Role of interface formation versus fibres properties in the mechanical behaviour of bio-based composites manufactured by Liquid Composite Molding processes. <i>Composites Part B: Engineering</i> , 2019, 163, 86-95.	12.0	21
26	Resin infusion-based processes simulation : coupled Stokes-Darcy flows in orthotropic preforms undergoing finite strain. <i>International Journal of Material Forming</i> , 2017, 10, 43-54.	2.0	20
27	Tensiometric method to reliably assess wetting properties of single fibers with resins: Validation on cellulosic reinforcements for composites. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 512, 26-33.	4.7	20
28	An Experimental Assessment of the Saturated Transverse Permeability of Non-crimped New Concept (NC2) Multiaxial Fabrics. <i>Journal of Composite Materials</i> , 2005, 39, 1169-1193.	2.4	19
29	Characterization of Liquid Resin Infusion (LRI) filling by fringe pattern projection and in situ thermocouples. <i>Composites Part A: Applied Science and Manufacturing</i> , 2010, 41, 36-44.	7.6	19
30	Gas transport in fibrous media: Application to in-plane permeability measurement using transient flow. <i>Journal of Composite Materials</i> , 2013, 47, 2237-2247.	2.4	18
31	A finite element-based level set method for fluid-elastic solid interaction with surface tension. <i>International Journal for Numerical Methods in Engineering</i> , 2013, 93, 919-941.	2.8	18
32	Sintering at Particle Scale: An Eulerian Computing Framework to Deal with Strong Topological and Material Discontinuities. <i>Archives of Computational Methods in Engineering</i> , 2014, 21, 141-187.	10.2	17
33	3D robust iterative coupling of Stokes, Darcy and solid mechanics for low permeability media undergoing finite strains. <i>Finite Elements in Analysis and Design</i> , 2015, 94, 1-15.	3.2	17
34	Numerical and experimental analyses of resin infusion manufacturing processes of composite materials. <i>Journal of Composite Materials</i> , 2012, 46, 1617-1631.	2.4	16
35	Integrating a logarithmic-strain based hyperelastic formulation into a three-field mixed finite element formulation to deal with incompressibility in finite-strain elastoplasticity. <i>Finite Elements in Analysis and Design</i> , 2014, 86, 61-70.	3.2	16
36	Numerical aspects of fluid infusion inside a compressible porous medium undergoing large strains. <i>European Journal of Computational Mechanics</i> , 2008, 17, 819-827.	0.6	15

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37	Effect of the mold on the residual strain field monitored with optical fibers sensors in resin transfer molding processes. <i>Journal of Composite Materials</i> , 2014, 48, 2589-2601.	2.4	15
38	Characterisation of woven flax fibres reinforcements: Effect of the shear on the in-plane permeability. <i>Journal of Composite Materials</i> , 2015, 49, 3415-3430.	2.4	14
39	Towards void formation and permeability predictions in LCM processes: A computational bifluid "solid mechanics framework dealing with capillarity and wetting issues. <i>Comptes Rendus - Mecanique</i> , 2016, 344, 236-250.	2.1	14
40	Stokes "Darcy coupling in severe regimes using multiscale stabilisation for mixed finite elements: monolithic approach versus decoupled approach. <i>European Journal of Computational Mechanics</i> , 2014, 23, 113-137.	0.6	13
41	Capillary wicking in bio-based reinforcements undergoing swelling " Dual scale consideration of porous medium. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020, 134, 105893.	7.6	13
42	Accounting for local capillary effects in two-phase flows with relaxed surface tension formulation in enriched finite elements. <i>Comptes Rendus - Mecanique</i> , 2018, 346, 617-633.	2.1	12
43	Influence of intra-yarn flows on whole 3D woven fabric numerical permeability: from Stokes to Stokes-Darcy simulations. <i>International Journal of Multiphase Flow</i> , 2020, 129, 103349.	3.4	12
44	A non-linear numerical approach to the analysis of microbuckling. <i>Composites Science and Technology</i> , 1998, 58, 785-790.	7.8	10
45	Monolithic Approach of Stokes-Darcy Coupling for LCM Process Modelling. <i>Key Engineering Materials</i> , 0, 554-557, 447-455.	0.4	8
46	Numerical modeling of local capillary effects in porous media as a pressure discontinuity acting on the interface of a transient bi-fluid flow. <i>International Journal of Material Forming</i> , 2019, 12, 675-691.	2.0	7
47	Identification strategy for orthotropic knitted elastomeric fabrics under large biaxial deformations. <i>Inverse Problems in Science and Engineering</i> , 2007, 15, 871-894.	1.2	6
48	Mod "lisation de la croissance de d "fauts dans des cupules de proth "ses de hanche en zircone soumises au ph "nom "ne de d "coaptation. <i>Mecanique Et Industries</i> , 2008, 9, 153-158.	0.2	6
49	Bounding transverse permeability of fibrous media: a statistical study from random representative volume elements with consideration of fluid slip. <i>International Journal of Multiphase Flow</i> , 2021, 143, 103751.	3.4	5
50	In vivo identification of soft biological tissues using MR imaging. <i>European Journal of Computational Mechanics</i> , 2009, 18, 21-32.	0.6	4
51	3D simulation of the matter transport by surface diffusion within a level-set context. <i>European Journal of Computational Mechanics</i> , 2010, 19, 281-292.	0.6	4
52	Editorial for thematic issues: computational methods in manufacturing. <i>International Journal of Material Forming</i> , 2017, 10, 1-2.	2.0	3
53	Modelling and simulating the forming of new dry automated lay-up reinforcements for primary structures. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	3
54	Simulation num "rique du proc "d " par infusion de r "sine d "une nouvelle g "n "ration de renforts structuraux pour l "a "ronautique. <i>Materiaux Et Techniques</i> , 2016, 104, 412.	0.9	3

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55	A Robust Monolithic Approach for Resin Infusion Based Process Modelling. Key Engineering Materials, 2014, 611-612, 306-315.	0.4	2
56	Theoretical study of structural effects on the compressive failure of laminate composites. Comptes Rendus De L'Académie Des Sciences - Series IIB - Mechanics-Physics-Chemistry-Astronomy, 1997, 324, 219-227.	0.1	1
57	Direct 3D Simulation of Powder Sintering by Surface and Volume Diffusion. Key Engineering Materials, 0, 554-557, 714-723.	0.4	1
58	3D Modelling of Doped and Multi-Materials during Sintering of a Granular Packing. Key Engineering Materials, 0, 554-557, 724-731.	0.4	1
59	Numerical approach for modelling across scales infusion-based processing of aircraft primary structures. AIP Conference Proceedings, 2017, , .	0.4	1
60	Étude mécanique des articles de contention et de leurs effets sur la jambe humaine. Mecanique Et Industries, 2009, 10, 7-13.	0.2	0
61	Wicking Tests for Unidirectional Fabrics: Measurements of Capillary Parameters to Evaluate Capillary Pressure in Liquid Composite Molding Processes. Journal of Visualized Experiments, 2017, , .	0.3	0
62	Fibre/matrix interface. , 2017, , 165-180.		0
63	Simulation par Éléments Finitis des procédés par infusion de résine. Revue Des Composites Et Des Matériaux Avances, 2012, 22, 383-393.	0.6	0
64	Simulation industrielle des procédés d'infusion de résine. Revue Des Composites Et Des Matériaux Avances, 2014, 24, 39-52.	0.6	0