

Loic Vanel

List of Publications by Year in descending order

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62
papers

2,006
citations

304743

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h-index

243625

44
g-index

63
all docs

63
docs citations

63
times ranked

1549
citing authors

#	ARTICLE	IF	CITATIONS
1	Immersed cantilever apparatus for mechanics and microscopy. Measurement Science and Technology, 2021, 32, 125603.	2.6	1
2	Dilation as a precursor in a continuous granular fault. EPJ Web of Conferences, 2021, 249, 15006.	0.3	1
3	How heat controls fracture: the thermodynamics of creeping and avalanching cracks. Soft Matter, 2020, 16, 9590-9602.	2.7	14
4	Continuously Sheared Granular Matter Reproduces in Detail Seismicity Laws. Physical Review Letters, 2019, 122, 218501.	7.8	44
5	Brittle-to-quasibrittle transition in creep rupture of 2D disordered elastic materials. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 053301.	2.3	1
6	Bending to Kinetic Energy Transfer in Adhesive Peel Front Microinstability. Physical Review Letters, 2019, 122, 068005.	7.8	11
7	A new test method to simulate low-severity wear conditions experienced by rubber tire materials. Wear, 2018, 410-411, 72-82.	3.1	14
8	Interacting Cracks Obey a Multiscale Attractive to Repulsive Transition. Physical Review Letters, 2018, 120, 255501.	7.8	22
9	The sound of avalanches: from a global to a local perspective.. EPJ Web of Conferences, 2017, 140, 03015.	0.3	1
10	Inertial and stick-slip regimes of unstable adhesive tape peeling. Soft Matter, 2016, 12, 4537-4548.	2.7	9
11	Dielectric Spectroscopy of a Stretched Polymer Glass: Heterogeneous Dynamics and Plasticity. Macromolecules, 2016, 49, 3889-3898.	4.8	20
12	A multi-channel setup to study fractures in scintillators. Measurement Science and Technology, 2016, 27, 125601.	2.6	0
13	From Dark Matter to Brittle Fracture. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 183-186.	0.5	0
14	Multiscale Stick-Slip Dynamics of Adhesive Tape Peeling. Physical Review Letters, 2015, 115, 128301.	7.8	17
15	Rate-dependent elastic hysteresis during the peeling of pressure sensitive adhesives. Soft Matter, 2015, 11, 3480-3491.	2.7	73
16	Repulsion and Attraction between a Pair of Cracks in a Plastic Sheet. Physical Review Letters, 2015, 114, 205501.	7.8	15
17	Peeling-angle dependence of the stick-slip instability during adhesive tape peeling. Soft Matter, 2014, 10, 9637-9643.	2.7	17
18	High Frequency Monitoring Reveals Aftershocks in Subcritical Crack Growth. Physical Review Letters, 2014, 112, 115502.	7.8	43

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19	Strong dynamical effects during stick-slip adhesive peeling. <i>Soft Matter</i> , 2014, 10, 132-138.	2.7	22
20	Revealing the Structure of a Granular Medium through Ballistic Sound Propagation. <i>Physical Review Letters</i> , 2014, 113, 098001.	7.8	23
21	Physical Mechanisms of Fatigue in Neat Polyamide 6,6. <i>Macromolecules</i> , 2014, 47, 3880-3894.	4.8	23
22	Sound and Light from Fractures in Scintillators. <i>Physical Review Letters</i> , 2013, 111, 154301.	7.8	22
23	Long-time damage under creep experiments in disordered materials: Transition from exponential to logarithmic fracture dynamics. <i>European Physical Journal E</i> , 2013, 36, 9847.	1.6	3
24	A new rotary tribometer to study the wear of reinforced rubber materials. <i>Wear</i> , 2013, 306, 149-160.	3.1	21
25	Intermittent stick-slip dynamics during the peeling of an adhesive tape from a roller. <i>Physical Review E</i> , 2013, 87, 022601.	2.1	20
26	Reinforcement in Natural Rubber Elastomer Nanocomposites: Breakdown of Entropic Elasticity. <i>Macromolecules</i> , 2013, 46, 8964-8972.	4.8	53
27	Experimental Study of the Effect of Disorder on Subcritical Crack Growth Dynamics. <i>Physical Review Letters</i> , 2013, 110, 165506.	7.8	22
28	Characterization of heat sources due to deformation in unfilled natural rubber. , 2013, , 549-556.		0
29	Fatigue crack growth dynamics in filled natural rubber. <i>Plastics, Rubber and Composites</i> , 2012, 41, 273-276.	2.0	12
30	Effect of Tear Rotation on Ultimate Strength in Reinforced Natural Rubber. <i>Macromolecules</i> , 2011, 44, 7006-7015.	4.8	21
31	Softening Induced Instability of a Stretched Cohesive Granular Layer. <i>Physical Review Letters</i> , 2010, 105, 208001.	7.8	12
32	Mechanical response and fracture dynamics of polymeric foams. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 214001.	2.8	20
33	Time-dependent rupture and slow crack growth: elastic and viscoplastic dynamics. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 214007.	2.8	43
34	Experimental study of crackling noise: conditions on power law scaling correlated with fracture precursors. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009, 2009, P01018.	2.3	21
35	Evaluation of the strain-induced martensitic transformation by acoustic emission monitoring in 304L austenitic stainless steel: Identification of the AE signature of the martensitic transformation and power-law statistics. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 492, 392-399.	5.6	43
36	Surface oscillations and slow crack growth controlled by creep dynamics of necking instability in a glassy film. <i>European Physical Journal E</i> , 2008, 27, 185-95.	1.6	4

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37	The motion of a freely falling chain tip: Force measurements. American Journal of Physics, 2008, 76, 541-545.	0.7	10
38	Attractive and repulsive cracks in a heterogeneous material. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P10022.	2.3	14
39	Dynamical Law for Slow Crack Growth in Polycarbonate Films. Physical Review Letters, 2007, 99, 205502.	7.8	9
40	Discrepancy between Subcritical and Fast Rupture Roughness: A Cumulant Analysis. Physical Review Letters, 2007, 98, 255502.	7.8	21
41	Statistics of fracture surfaces. Physical Review E, 2007, 75, 016104.	2.1	87
42	Imaging the stick-slip peeling of an adhesive tape under a constant load. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P03005-P03005.	2.3	20
43	Slow crack growth: Models and experiments. European Physical Journal: Special Topics, 2007, 146, 341-356.	2.6	18
44	Super-Arrhenius dynamics for sub-critical crack growth in two-dimensional disordered brittle media. Europhysics Letters, 2006, 74, 602-608.	2.0	11
45	Statistical properties of microcracking in polyurethane foams under tensile test, influence of temperature and density. International Journal of Fracture, 2006, 140, 87-98.	2.2	36
46	Subcritical crack growth in fibrous materials. Europhysics Letters, 2006, 74, 595-601.	2.0	22
47	The cooperative effect of load and disorder in thermally activated rupture of a two-dimensional random fuse network. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P06020-P06020.	2.3	20
48	Fracture Surfaces as Multiscaling Graphs. Physical Review Letters, 2006, 96, 055509.	7.8	48
49	Slow crack growth in polycarbonate films. Europhysics Letters, 2005, 71, 242-248.	2.0	11
50	Subcritical Statistics in Rupture of Fibrous Materials: Experiments and Model. Physical Review Letters, 2004, 93, 095505.	7.8	75
51	Thermal activation of rupture and slow crack growth in a model of homogeneous brittle materials. Europhysics Letters, 2003, 62, 320-326.	2.0	33
52	Footprints in Sand: The Response of a Granular Material to Local Perturbations. Physical Review Letters, 2001, 87, 035506.	7.8	211
53	Diffusing-wave spectroscopy for arbitrary geometries: numerical analysis by a boundary-element method. Applied Optics, 2001, 40, 4179.	2.1	4
54	Science in the Sandbox: Fluctuations, Friction and Instabilities. Lecture Notes in Physics, 2001, , 351-391.	0.7	3

#	ARTICLE	IF	CITATIONS
55	Mechanical response of a static granular piling. Materials Research Society Symposia Proceedings, 2000, 627, 1.	0.1	0
56	Stresses in Silos: Comparison Between Theoretical Models and New Experiments. Physical Review Letters, 2000, 84, 1439-1442.	7.8	119
57	Pressure screening and fluctuations at the bottom of a granular column. European Physical Journal B, 1999, 11, 525-533.	1.5	90
58	Memories in sand: Experimental tests of construction history on stress distributions under sandpiles. Physical Review E, 1999, 60, R5040-R5043.	2.1	237
59	Static friction and arch formation in granular materials. Physical Review E, 1998, 58, 805-812.	2.1	20
60	Rise-Time Regimes of a Large Sphere in Vibrated Bulk Solids. Physical Review Letters, 1997, 78, 1255-1258.	7.8	79
61	Pattern formation in a vibrated two-dimensional granular layer. Physical Review E, 1996, 53, 2972-2975.	2.1	117
62	Fatigue Behavior in Filled Natural Rubber: Study of the Mechanical Damage Dynamics. Key Engineering Materials, 0, 488-489, 666-669.	0.4	3