

Anne Mangeney

List of Publications by Year in descending order

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108
papers

5,514
citations

71061

41
h-index

82499

72
g-index

118
all docs

118
docs citations

118
times ranked

3554
citing authors

#	ARTICLE	IF	CITATIONS
1	Simplified simulation of rock avalanches and subsequent debris flows with a single thin-layer model: Application to the Prêcheur river (Martinique, Lesser Antilles). <i>Engineering Geology</i> , 2022, 296, 106457.	2.9	7
2	A bed pressure correction of the friction term for depth-averaged granular flow models. <i>Applied Mathematical Modelling</i> , 2022, 106, 627-658.	2.2	2
3	Dilatancy in dry granular flows with a compressible $\mu(I)$ rheology. <i>Journal of Computational Physics</i> , 2021, 429, 110013.	1.9	8
4	A Weakly Non-hydrostatic Shallow Model for Dry Granular Flows. <i>Journal of Scientific Computing</i> , 2021, 86, 1.	1.1	11
5	Explicit solutions to a free interface model for the static/flowing transition in thin granular flows. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2021, 55, S369-S395.	0.8	4
6	Seismology and Environment. <i>Encyclopedia of Earth Sciences Series</i> , 2021, , 1655-1661.	0.1	0
7	Some analytical solutions for validation of free surface flow computational codes. <i>Journal of Fluid Mechanics</i> , 2021, 913, .	1.4	2
8	Assessing the effect of lithological setting, block characteristics and slope topography on the runout length of rockfalls in the Alps and on the island of La Réunion. <i>Natural Hazards and Earth System Sciences</i> , 2021, 21, 1159-1177.	1.5	4
9	Locating Rockfalls Using Inter-Station Ratios of Seismic Energy at Dolomieu Crater, Piton de la Fournaise Volcano. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2020JF005715.	1.0	6
10	Experimental assessment of the effective friction at the base of granular chute flows on a smooth incline. <i>Physical Review E</i> , 2021, 103, 042905.	0.8	13
11	Topography Curvature Effects in Thin-Layer Models for Gravity-Driven Flows Without Bed Erosion. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2020JF005657.	1.0	13
12	Laboratory Landquakes: Insights From Experiments Into the High-Frequency Seismic Signal Generated by Geophysical Granular Flows. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2021JF006172.	1.0	8
13	Dynamics of recent landslides (<20 My) on Mars: Insights from high-resolution topography on Earth and Mars and numerical modelling. <i>Planetary and Space Science</i> , 2021, 206, 105303.	0.9	10
14	Synthetic benchmarking of concentrated pyroclastic current models. <i>Bulletin of Volcanology</i> , 2021, 83, 1.	1.1	12
15	A two-layer shallow flow model with two axes of integration, well-balanced discretization and application to submarine avalanches. <i>Journal of Computational Physics</i> , 2020, 406, 109186.	1.9	8
16	Triggering granular avalanches with ultrasound. <i>Physical Review E</i> , 2020, 102, 042901.	0.8	11
17	Simulation of Topography Effects on Rockfall-Generated Seismic Signals: Application to Piton de la Fournaise Volcano. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB019874.	1.4	6
18	Operational Estimation of Landslide Runout: Comparison of Empirical and Numerical Methods. <i>Geosciences (Switzerland)</i> , 2020, 10, 424.	1.0	11

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19	Modelling capsizing icebergs in the open ocean. <i>Geophysical Journal International</i> , 2020, 223, 1265-1287.	1.0	5
20	Analysis of the 2017 June Maoxian landslide processes with force histories from seismological inversion and terrain features. <i>Geophysical Journal International</i> , 2020, 222, 1965-1976.	1.0	8
21	Multilayer models for shallow two-phase debris flows with dilatancy effects. <i>Journal of Computational Physics</i> , 2020, 419, 109699.	1.9	7
22	Constraining landslide characteristics with Bayesian inversion of field and seismic data. <i>Geophysical Journal International</i> , 2020, 221, 1341-1348.	1.0	18
23	Seismology and Environment. <i>Encyclopedia of Earth Sciences Series</i> , 2020, , 1-8.	0.1	1
24	Relations Between the Characteristics of Granular Column Collapses and Resultant High-Frequency Seismic Signals. <i>Journal of Geophysical Research F: Earth Surface</i> , 2019, 124, 2987-3021.	1.0	16
25	Modeling of partial dome collapse of La Soufrière of Guadeloupe volcano: implications for hazard assessment and monitoring. <i>Scientific Reports</i> , 2019, 9, 13105.	1.6	31
26	Monitoring Greenland ice sheet buoyancy-driven calving discharge using glacial earthquakes. <i>Annals of Glaciology</i> , 2019, 60, 75-95.	2.8	17
27	Empirical investigation of friction weakening of terrestrial and Martian landslides using discrete element models. <i>Landslides</i> , 2019, 16, 1121-1140.	2.7	21
28	Numerical approximation of the 3D hydrostatic Navier-Stokes system with free surface. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2019, 53, 1981-2024.	0.8	3
29	Elastic wave generated by granular impact on rough and erodible surfaces. <i>Journal of Applied Physics</i> , 2018, 123, 044901.	1.1	18
30	Forensic investigations of the Cima Salti Landslide, northern Italy, using runout simulations. <i>Geomorphology</i> , 2018, 318, 172-186.	1.1	5
31	2D granular flows with the $\frac{1}{4}$ (I) rheology and side walls friction: A well-balanced multilayer discretization. <i>Journal of Computational Physics</i> , 2018, 356, 192-219.	1.9	38
32	On the Link Between External Forcings and Slope Instabilities in the Piton de la Fournaise Summit Crater, Reunion Island. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 2422-2442.	1.0	23
33	Numerical Modeling of Iceberg Capsizing Responsible for Glacial Earthquakes. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 3013-3033.	1.0	7
34	Estimation of dynamic friction and movement history of large landslides. <i>Landslides</i> , 2018, 15, 1963-1974.	2.7	34
35	Link Between the Dynamics of Granular Flows and the Generated Seismic Signal: Insights From Laboratory Experiments. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 1407-1429.	1.0	23
36	Continuum viscoplastic simulation of a granular column collapse on large slopes: $\frac{1}{4}$ rheology and lateral wall effects. <i>Physics of Fluids</i> , 2017, 29, .	1.6	52

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37	Two-dimensional simulation by regularization of free surface viscoplastic flows with Drucker-Prager yield stress and application to granular collapse. <i>Journal of Computational Physics</i> , 2017, 333, 387-408.	1.9	14
38	Spatio-temporal evolution of rockfall activity from 2007 to 2011 at the Piton de la Fournaise volcano inferred from seismic data. <i>Journal of Volcanology and Geothermal Research</i> , 2017, 333-334, 36-52.	0.8	27
39	Numerical simulation of the 30-45 Åka debris avalanche flow of Montagne Pelée volcano, Martinique: from volcano flank collapse to submarine emplacement. <i>Natural Hazards</i> , 2017, 87, 1189-1222.	1.6	31
40	The dynamic response of prone-to-fall columns to ambient vibrations: comparison between measurements and numerical modelling. <i>Geophysical Journal International</i> , 2017, 208, 1058-1076.	1.0	33
41	Granular and particle-laden flows: from laboratory experiments to field observations. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 053001.	1.3	146
42	A Free Interface Model for Static/Flowing Dynamics in Thin-Layer Flows of Granular Materials with Yield: Simple Shear Simulations and Comparison with Experiments. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 386.	1.3	10
43	A two-phase solid-fluid model for dense granular flows including dilatancy effects: comparison with submarine granular collapse experiments. <i>EPJ Web of Conferences</i> , 2017, 140, 09039.	0.1	15
44	Application of a Combined Finite Element-Finite Volume Method to a 2D Non-hydrostatic Shallow Water Problem. <i>Springer Proceedings in Mathematics and Statistics</i> , 2017, , 219-226.	0.1	1
45	Complex force history of a calving-generated glacial earthquake derived from broadband seismic inversion. <i>Geophysical Research Letters</i> , 2016, 43, 1055-1065.	1.5	24
46	A multilayer shallow model for dry granular flows with the -rheology: application to granular collapse on erodible beds. <i>Journal of Fluid Mechanics</i> , 2016, 798, 643-681.	1.4	41
47	A two-phase two-layer model for fluidized granular flows with dilatancy effects. <i>Journal of Fluid Mechanics</i> , 2016, 801, 166-221.	1.4	67
48	Resolving source mechanisms of microseismic swarms induced by solution mining. <i>Geophysical Journal International</i> , 2016, 206, 696-715.	1.0	12
49	Estimation of dynamic friction of the Akatani landslide from seismic waveform inversion and numerical simulation. <i>Geophysical Journal International</i> , 2016, 206, 1479-1486.	1.0	34
50	Experimental validation of theoretical methods to estimate the energy radiated by elastic waves during an impact. <i>Journal of Sound and Vibration</i> , 2016, 362, 176-202.	2.1	22
51	An analytic approach for the evolution of the static/flowing interface in viscoplastic granular flows. <i>Communications in Mathematical Sciences</i> , 2016, 14, 2101-2126.	0.5	17
52	On the shaping factors of the secondary microseismic wavefield. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 6241-6262.	1.4	53
53	Numerical modeling of the Mount Meager landslide constrained by its force history derived from seismic data. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 2579-2599.	1.4	71
54	A two-phase shallow debris flow model with energy balance. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2015, 49, 101-140.	0.8	46

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55	Friction weakening in granular flows deduced from seismic records at the Soufrière Hills Volcano, Montserrat. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 7536-7557.	1.4	59
56	Characterization of rockfalls from seismic signal: Insights from laboratory experiments. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 7102-7137.	1.4	41
57	Toward continuous quantification of lava extrusion rate: Results from the multidisciplinary analysis of the 2 January 2010 eruption of Piton de la Fournaise volcano, La Réunion. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 3026-3047.	1.4	23
58	Location of microseismic swarms induced by salt solution mining. <i>Geophysical Journal International</i> , 2015, 200, 337-362.	1.0	22
59	Viscoplastic modeling of granular column collapse with pressure-dependent rheology. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2015, 219, 1-18.	1.0	116
60	Model Space Exploration for Determining Landslide Source History from Long-Period Seismic Data. <i>Pure and Applied Geophysics</i> , 2015, 172, 389-413.	0.8	29
61	An energy-consistent depth-averaged Euler system: Derivation and properties. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2015, 20, 961-988.	0.5	32
62	Frictional velocity-weakening in landslides on Earth and on other planetary bodies. <i>Nature Communications</i> , 2014, 5, 3417.	5.8	224
63	An Automatic Kurtosis-Based P- and S-Phase Picker Designed for Local Seismic Networks. <i>Bulletin of the Seismological Society of America</i> , 2014, 104, 394-409.	1.1	171
64	Automated identification, location, and volume estimation of rockfalls at Piton de la Fournaise volcano. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 1082-1105.	1.0	94
65	Fundamental changes of granular flow dynamics, deposition, and erosion processes at high slope angles: Insights from laboratory experiments. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 504-532.	1.0	100
66	High-resolution bathymetry reveals contrasting landslide activity shaping the walls of the Mid-Atlantic Ridge axial valley. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 996-1011.	1.0	37
67	Exact solution for granular flows. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2013, 37, 1408-1433.	1.7	76
68	Modelling secondary microseismic noise by normal mode summation. <i>Geophysical Journal International</i> , 2013, 193, 1732-1745.	1.0	86
69	Dynamic pore-pressure variations induce substrate erosion by pyroclastic flows. <i>Geology</i> , 2013, 41, 1107-1110.	2.0	58
70	Modelling long-term seismic noise in various environments. <i>Geophysical Journal International</i> , 2012, 191, 707-722.	1.0	104
71	Numerical modeling of the Mount Steller landslide flow history and of the generated long period seismic waves. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	108
72	LiDAR derived morphology of the 1993 Lascar pyroclastic flow deposits, and implication for flow dynamics and rheology. <i>Journal of Volcanology and Geothermal Research</i> , 2012, 245-246, 81-97.	0.8	36

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73	Ocean wave sources of seismic noise. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	246
74	Influence of the scar geometry on landslide dynamics and deposits: Application to Martian landslides. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	46
75	Slope instabilities in Dolomieu crater, Réunion Island: From seismic signals to rockfall characteristics. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	137
76	On the run-out distance of geophysical gravitational flows: Insight from fluidized granular collapse experiments. <i>Earth and Planetary Science Letters</i> , 2011, 311, 375-385.	1.8	65
77	Landslide boost from entrainment. <i>Nature Geoscience</i> , 2011, 4, 77-78.	5.4	46
78	A Riemann solver for single-phase and two-phase shallow flow models based on relaxation. Relations with Roe and VFRoe solvers. <i>Journal of Computational Physics</i> , 2011, 230, 515-550.	1.9	26
79	Sinuuous gullies on Mars: Frequency, distribution, and implications for flow properties. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	118
80	Numerical modeling of landquakes. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	110
81	Erosion and mobility in granular collapse over sloping beds. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	200
82	Simulation of Tsaoling landslide, Taiwan, based on Saint Venant equations over general topography. <i>Engineering Geology</i> , 2009, 104, 181-189.	2.9	79
83	Results of Back-Analysis of the Propagation of Rock Avalanches as a Function of the Assumed Rheology. <i>Rock Mechanics and Rock Engineering</i> , 2008, 41, 59-84.	2.6	117
84	On new erosion models of Savage-Hutter type for avalanches. <i>Acta Mechanica</i> , 2008, 199, 181-208.	1.1	87
85	A new Savage-Hutter type model for submarine avalanches and generated tsunami. <i>Journal of Computational Physics</i> , 2008, 227, 7720-7754.	1.9	136
86	A Roe-type scheme for two-phase shallow granular flows over variable topography. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2008, 42, 851-885.	0.8	111
87	High Order Finite Volume Methods Applied to Sediment Transport and Submarine Avalanches. , 2008, , 247-258.		2
88	Numerical Modeling of Two-Phase Gravitational Granular Flows with Bottom Topography. , 2008, , 825-832.		7
89	Numerical modeling of self-channeling granular flows and of their levee-channel deposits. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	145
90	Mobility and topographic effects for large Valles Marineris landslides on Mars. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	75

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91	Avalanche mobility induced by the presence of an erodible bed and associated entrainment. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	113
92	The effect of the earth pressure coefficients on the runout of granular material. <i>Environmental Modelling and Software</i> , 2007, 22, 1437-1454.	1.9	71
93	Memory of the unjamming transition during cyclic tiltings of a granular pile. <i>Physical Review E</i> , 2005, 72, 051305.	0.8	28
94	On the use of Saint Venant equations to simulate the spreading of a granular mass. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	161
95	Spreading of a granular mass on a horizontal plane. <i>Physics of Fluids</i> , 2004, 16, 2371-2381.	1.6	279
96	A new model of Saint Venant and Savageâ€™Hutter type for gravity driven shallow water flows. <i>Comptes Rendus Mathematique</i> , 2003, 336, 531-536.	0.1	121
97	Mesh size selection in a soil-biosphere-atmosphere transfer model. <i>Journal of Environmental Engineering and Science</i> , 2003, 2, 77-81.	0.3	1
98	Short Note: Precision and Convergence of a Steady Two-Dimensional Ice Sheet Flow Model. <i>Mathematical Geosciences</i> , 2001, 33, 229-237.	0.9	0
99	Analytical Solution for Testing Debris Avalanche Numerical Models. <i>Pure and Applied Geophysics</i> , 2000, 157, 1081-1096.	0.8	118
100	Modeling of debris avalanche and generated water waves: Application to real and potential events in Montserrat. <i>Physics and Chemistry of the Earth</i> , 2000, 25, 741-745.	0.6	26
101	Numerical modeling of a landslide-generated tsunami following a potential explosion of the Montserrat volcano. <i>Physics and Chemistry of the Earth</i> , 1999, 24, 163-168.	0.6	25
102	Anisotropic behavior of GRIP ices and flow in Central Greenland. <i>Earth and Planetary Science Letters</i> , 1998, 154, 307-322.	1.8	51
103	The shallow ice approximation for anisotropic ice: Formulation and limits. <i>Journal of Geophysical Research</i> , 1998, 103, 691-705.	3.3	31
104	Simulation of water waves generated by a potential debris avalanche in Montserrat, Lesser Antilles. <i>Geophysical Research Letters</i> , 1998, 25, 3697-3700.	1.5	52
105	A numerical study of anisotropic, low Reynolds number, free surface flow for ice sheet modeling. <i>Journal of Geophysical Research</i> , 1997, 102, 22749-22764.	3.3	43
106	Isothermal flow of an anisotropic ice sheet in the vicinity of an ice divide. <i>Journal of Geophysical Research</i> , 1996, 101, 28189-28204.	3.3	41
107	Greenland under changing climates: sensitivity experiments with a new three-dimensional ice-sheet model. <i>Annals of Glaciology</i> , 1995, 21, 1-7.	2.8	48
108	A two-dimensional method for a family of dispersive shallow water models. <i>SMAI Journal of Computational Mathematics</i> , 0, 6, 187-226.	0.0	6