

Julien Chauchat

List of Publications by Year in descending order

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Version: 2024-02-01

42
papers

983
citations

394421

19
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52
all docs

52
docs citations

52
times ranked

655
citing authors

#	ARTICLE	IF	CITATIONS
1	A three-dimensional numerical model for dense granular flows based on the <small>xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mi>$\frac{1}{4}$</mml:mi><mml:mo>stretchy="false"></mml:mo><mml:mi> </mml:mi><mml:mo></small> Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 732 Td (stretchy="false"></mml:mo><mml:mi>	3.8	92
2	Investigation of the mobile granular layer in bedload transport by laminar shearing flows. Journal of Fluid Mechanics, 2013, 736, 594-615.	3.4	78
3	Investigation of sheet-flow processes based on novel acoustic high-resolution velocity and concentration measurements. Journal of Fluid Mechanics, 2015, 767, 1-30.	3.4	70
4	SedFoam-2.0: a 3-D two-phase flow numerical model for sediment transport. Geoscientific Model Development, 2017, 10, 4367-4392.	3.6	66
5	A two-phase model for sheet flow regime based on dense granular flow rheology. Journal of Geophysical Research: Oceans, 2013, 118, 619-634.	2.6	63
6	Dense granular flow rheology in turbulent bedload transport. Journal of Fluid Mechanics, 2016, 804, 490-512.	3.4	53
7	A minimal coupled fluid-discrete element model for bedload transport. Physics of Fluids, 2015, 27, .	4.0	46
8	A three-dimensional numerical model for incompressible two-phase flow of a granular bed submitted to a laminar shearing flow. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 439-449.	6.6	44
9	A two-phase numerical model for suspended-sediment transport in estuaries. Advances in Water Resources, 2009, 32, 1187-1196.	3.8	42
10	On turbulence closures for two-phase sediment-laden flow models. Journal of Geophysical Research, 2008, 113, .	3.3	39
11	A comprehensive two-phase flow model for unidirectional sheet-flows. Journal of Hydraulic Research/De Recherches Hydrauliques, 2018, 56, 15-28.	1.7	34
12	Modelling sedimentation-consolidation in the framework of a one-dimensional two-phase flow model. Journal of Hydraulic Research/De Recherches Hydrauliques, 2013, 51, 293-305.	1.7	30
13	Revisiting slope influence in turbulent bedload transport: consequences for vertical flow structure and transport rate scaling. Journal of Fluid Mechanics, 2018, 839, 135-156.	3.4	27
14	An Eulerian two-phase model for steady sheet flow using large-eddy simulation methodology. Advances in Water Resources, 2018, 111, 205-223.	3.8	27
15	A Numerical Study of Sheet Flow Under Monochromatic Nonbreaking Waves Using a Free Surface Resolving Eulerian Two-phase Flow Model. Journal of Geophysical Research: Oceans, 2018, 123, 4693-4719.	2.6	24
16	Three-dimensional scour simulations with a two-phase flow model. Advances in Water Resources, 2020, 138, 103544.	3.8	24
17	Simulation of dredged sediment releases into homogeneous water using a two-phase model. Advances in Water Resources, 2012, 48, 102-112.	3.8	23
18	Turbulence modifications induced by the bed mobility in intense sediment-laden flows. Journal of Fluid Mechanics, 2016, 808, 469-484.	3.4	20

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19	Eddy interaction model for turbulent suspension in Reynolds-averaged Euler-Lagrange simulations of steady sheet flow. <i>Advances in Water Resources</i> , 2018, 111, 435-451.	3.8	20
20	Microscopic origins of shear stress in dense fluid-grain mixtures. <i>Granular Matter</i> , 2015, 17, 297-309.	2.2	19
21	Discrete and continuum modelling of grain size segregation during bedload transport. <i>Journal of Fluid Mechanics</i> , 2020, 895, .	3.4	19
22	Two-Phase Flow Simulation of Tunnel and Lee-Wake Erosion of Scour below a Submarine Pipeline. <i>Water (Switzerland)</i> , 2019, 11, 1727.	2.7	18
23	On Bedload and Suspended Load Measurement Performances in Sheet Flows Using Acoustic and Conductivity Profilers. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 2546-2562.	2.8	17
24	Scour at Bridge Foundations in Supercritical Flows: An Analysis of Knowledge Gaps. <i>Water (Switzerland)</i> , 2019, 11, 1656.	2.7	10
25	Bridging the gap between particle-scale forces and continuum modelling of size segregation: application to bedload transport. <i>Journal of Fluid Mechanics</i> , 2021, 916, .	3.4	9
26	Simulation of the turbidity maximum in the Seine estuary with a two-phase flow model. <i>Comptes Rendus - Geoscience</i> , 2009, 341, 505-512.	1.2	8
27	A Numerical Study of Onshore Ripple Migration Using a Eulerian Two-phase Model. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2020JC016773.	2.6	8
28	A two-fluid model for immersed granular avalanches with dilatancy effects. <i>Journal of Fluid Mechanics</i> , 2021, 925, .	3.4	8
29	An Eulerian two-phase flow model investigation on scour onset and backfill of a 2D pipeline. <i>European Journal of Mechanics, B/Fluids</i> , 2022, 91, 10-26.	2.5	8
30	Mobility of bidisperse mixtures during bedload transport. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	7
31	Experimental evidence of settling retardation in a turbulence column. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	6
32	A finite-size correction model for two-fluid large-eddy simulation of particle-laden boundary layer flow. <i>Journal of Fluid Mechanics</i> , 2021, 913, .	3.4	5
33	Bedload and Concentration Effects on Turbulent Suspension Properties in Heavy Particle Sheet Flows. <i>Journal of Hydraulic Engineering</i> , 2022, 148, .	1.5	5
34	Numerical investigation of unsteady effects in oscillatory sheet flows. <i>Journal of Fluid Mechanics</i> , 2022, 943, .	3.4	5
35	Application of a Eulerian two-phase flow model to scour processes. <i>E3S Web of Conferences</i> , 2018, 40, 05015.	0.5	3
36	Investigation of sheet-flow processes based on novel acoustic high-resolution velocity and concentration measurements - ERRATUM. <i>Journal of Fluid Mechanics</i> , 2015, 769, 723-724.	3.4	1

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37	Eulerian Two-Phase Model Reveals the Importance of Wave Period in Ripple Evolution and Equilibrium Geometry. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2021JF006132.	2.8	1
38	Controversial turbulent Schmidt number value in particle-laden boundary layer flows. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	1
39	Experiments on a single large particle segregating in bedload transport. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	1
40	Investigation of vertical size segregation in bedload sediment transport with a coupled fluid-discrete element model. <i>EPJ Web of Conferences</i> , 2017, 140, 09025.	0.3	0
41	On bedload measurement performances of high-resolution acoustic (ACVP) and conductivity (CCP) profilers. <i>E3S Web of Conferences</i> , 2018, 40, 04007.	0.5	0
42	Vertical grain size sorting in bedload transport on steep slopes with a coupled fluid-discrete element model. <i>E3S Web of Conferences</i> , 2018, 40, 04013.	0.5	0