

Roland Kaitna

List of Publications by Year in descending order

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34
papers

1,047
citations

471509

17
h-index

414414

32
g-index

50
all docs

50
docs citations

50
times ranked

953
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysing Debris-Flow Impact Models, Based on a Small Scale Modelling Approach. Surveys in Geophysics, 2013, 34, 121-140.	4.6	141
2	Unraveling driving factors for large rock-ice avalanche mobility. Earth Surface Processes and Landforms, 2011, 36, 1948-1966.	2.5	117
3	Effects of coarse grain size distribution and fine particle content on pore fluid pressure and shear behavior in experimental debris flows. Journal of Geophysical Research F: Earth Surface, 2016, 121, 415-441.	2.8	97
4	Experimental study on rheologic behaviour of debris flow material. Acta Geotechnica, 2007, 2, 71-85.	5.7	85
5	Frictional behavior of granular gravel-ice mixtures in vertically rotating drum experiments and implications for rock-ice avalanches. Cold Regions Science and Technology, 2011, 69, 70-90.	3.5	55
6	Modeling debris-flow runout patterns on two alpine fans with different dynamic simulation models. Natural Hazards and Earth System Sciences, 2015, 15, 1483-1492.	3.6	54
7	Surface slopes, velocity profiles and fluid pressure in coarse-grained debris flows saturated with water and mud. Journal of Fluid Mechanics, 2014, 741, 377-403.	3.4	45
8	The temporally varying roles of rainfall, snowmelt and soil moisture for debris flow initiation in a snow-dominated system. Hydrology and Earth System Sciences, 2018, 22, 3493-3513.	4.9	45
9	Velocity profiles and basal stresses in natural debris flows. Earth Surface Processes and Landforms, 2020, 45, 1764-1776.	2.5	43
10	Granular-front formation in free-surface flow of concentrated suspensions. Physical Review E, 2015, 92, 052204.	2.1	38
11	Debris-flow risk analysis in a managed torrent based on a stochastic life-cycle performance. Science of the Total Environment, 2016, 557-558, 142-153.	8.0	35
12	The Application of the Risk Concept to Debris Flow Hazards. Geomechanik Und Tunnelbau, 2008, 1, 120-129.	0.3	31
13	The Value of Using Multiple Hydrometeorological Variables to Predict Temporal Debris Flow Susceptibility in an Alpine Environment. Water Resources Research, 2018, 54, 6822-6843.	4.2	31
14	A new experimental facility for laboratory debris flow investigation. Journal of Hydraulic Research/De Recherches Hydrauliques, 2007, 45, 797-810.	1.7	27
15	Occurrence conditions of roll waves for three grain-fluid models and comparison with results from experiments and field observation. Geophysical Journal International, 2013, 195, 1464-1480.	2.4	25
16	Physical and numerical modelling of a bedload deposition area for an Alpine torrent. Natural Hazards and Earth System Sciences, 2011, 11, 1589-1597.	3.6	22
17	Debris-flow activity in five adjacent gullies in a limestone mountain range. Geochronometria, 2015, 42, .	0.8	20
18	Trigger characteristics of torrential flows from high to low alpine regions in Austria. Science of the Total Environment, 2019, 658, 958-972.	8.0	20

#	ARTICLE	IF	CITATIONS
19	Future changes in annual, seasonal and monthly runoff signatures in contrasting Alpine catchments in Austria. Hydrology and Earth System Sciences, 2021, 25, 3429-3453.	4.9	16
20	Abschätzung einer Anprallkraft für murenexponierte Massivbauwerke. Bautechnik, 2008, 85, 803-811.	0.1	14
21	Estimation of debris flood magnitudes based on dendrogeomorphic data and semi-empirical relationships. Geomorphology, 2013, 201, 80-85.	2.6	12
22	Evaluation concepts to compare observed and simulated deposition areas of mass movements. Computational Geosciences, 2017, 21, 335-343.	2.4	12
23	The Heat of the Flow: Thermal Equilibrium in Gravitational Mass Flows. Geophysical Research Letters, 2018, 45, 11,219.	4.0	12
24	Monitoring Debris-Flow Surges and Triggering Rainfall at the Lattenbach Creek, Austria. Environmental and Engineering Geoscience, 2021, 27, 213-220.	0.9	11
25	Variable hydrograph inputs for a numerical debris-flow runout model. Natural Hazards and Earth System Sciences, 2022, 22, 1627-1654.	3.6	8
26	Silent Witnesses for Torrential Processes. Advances in Global Change Research, 2013, , 111-130.	1.6	7
27	Stress anisotropy in natural debris flows during impacting a monitoring structure. Landslides, 2022, 19, 211-220.	5.4	7
28	Comparative rheologic investigations in a vertically rotating flume and a "moving-bed" conveyor belt flume. WIT Transactions on Ecology and the Environment, 2006, , .	0.0	4
29	Susceptibility and Triggers for Debris Flows: Emergence, Loading, Release and Entrainment. Advances in Global Change Research, 2013, , 33-49.	1.6	3
30	Measurements of Velocity Profiles in Natural Debris Flows: A View behind the Muddy Curtain. Environmental and Engineering Geoscience, 2021, 27, 87-94.	0.9	2
31	Forschungsbauwerk zur Untersuchung von Murgängen und deren Einwirkung auf Schutzbauwerke. Ce/Papers, 2019, 3, 161-165.	0.3	1
32	Viscous Effects on Granular Mixtures in a Rotating Drum. Springer Series in Geomechanics and Geoengineering, 2015, , 57-71.	0.1	1
33	Numerical Simulation of Shallow Grain-Fluid Flows in a Rotating Drum. , 2015, , 1663-1666.		0
34	Evaluation of Model Parameterization Through Laboratory Investigations. International Journal of Erosion Control Engineering, 2016, 9, 130-134.	0.5	0