Simon Loew

List of Publications by Year
in descending order

69 papers	2,430 citations	147566 31 h-index	223531 46 g-index
94 all docs	94 docs citations	94 times ranked	1980 citing authors

#	Article	IF	Citations
1	Mapping Landslides on EO Data: Performance of Deep Learning Models vs. Traditional Machine Learning Models. Remote Sensing, 2020, 12, 346.	1.8	134
2	The seismo-hydromechanical behavior during deep geothermal reservoir stimulations: open questions tackled in a decameter-scale in situ stimulation experiment. Solid Earth, 2018, 9, 115-137.	1.2	126
3	Beyond debuttressing: Mechanics of paraglacial rock slope damage during repeat glacial cycles. Journal of Geophysical Research F: Earth Surface, 2017, 122, 1004-1036.	1.0	124
4	Monitoring and early warning of the 2012 Preonzo catastrophic rockslope failure. Landslides, 2017, 14, 141-154.	2.7	96
5	Composite rock slope kinematics at the current Randa instability, Switzerland, based on remote sensing and numerical modeling. Engineering Geology, 2011, 118, 37-53.	2.9	78
6	Subglacial extensional fracture development and implications for Alpine Valley evolution. Journal of Geophysical Research F: Earth Surface, 2014, 119, 62-81.	1.0	78
7	Hydraulic conductivity distribution in crystalline rocks, derived from inflows to tunnels and galleries in the Central Alps, Switzerland. Hydrogeology Journal, 2010, 18, 863-891.	0.9	76
8	Long-term investigation of a deep-seated creeping landslide in crystalline rock. Part I. Geological and hydromechanical factors controlling the Campo Vallemaggia landslide. Canadian Geotechnical Journal, 2007, 44, 1157-1180.	1.4	73
9	A new global database to improve predictions of permeability distribution in crystalline rocks at site scale. Journal of Geophysical Research: Solid Earth, 2017, 122, 3513-3539.	1.4	66
10	Normal stiffness of fractures in granitic rock: A compilation of laboratory and in-situ experiments. International Journal of Rock Mechanics and Minings Sciences, 2008, 45, 1500-1507.	2.6	65
11	Ground settlements above tunnels in fractured crystalline rock: numerical analysis of coupled hydromechanical mechanisms. Hydrogeology Journal, 2003, 11, 162-173.	0.9	63
12	In situ stress control on microcrack generation and macroscopic extensional fracture in exhuming bedrock. Journal of Geophysical Research: Solid Earth, 2014, 119, 594-615.	1.4	60
13	Recharge areas and geochemical evolution of groundwater in an alluvial aquifer system in the Sultanate of Oman. Hydrogeology Journal, 2006, 14, 203-224.	0.9	59
14	Internal structure and deformation of an unstable crystalline rock mass above Randa (Switzerland): Part I â€" Internal structure from integrated geological and geophysical investigations. Engineering Geology, 2008, 101, 1-14.	2.9	59
15	Thermomechanical Stresses Drive Damage of Alpine Valley Rock Walls During Repeat Glacial Cycles. Journal of Geophysical Research F: Earth Surface, 2018, 123, 2620-2646.	1.0	56
16	Hydraulic stimulation and fluid circulation experiments in underground laboratories: Stepping up the scale towards engineered geothermal systems. Geomechanics for Energy and the Environment, 2020, 24, 100175.	1.2	55
17	Thermomechanical forcing of deep rock slope deformation: 1. Conceptual study of a simplified slope. Journal of Geophysical Research, 2011, 116, .	3.3	51
18	A new strategy to map landslides with a generalized convolutional neural network. Scientific Reports, 2021, 11, 9722.	1.6	51

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19	Internal structure and deformation of an unstable crystalline rock mass above Randa (Switzerland): Part II â€" Three-dimensional deformation patterns. Engineering Geology, 2008, 101, 15-32.	2.9	48
20	Thermomechanical forcing of deep rock slope deformation: 2. The Randa rock slope instability. Journal of Geophysical Research, 2011, 116, .	3.3	46
21	Monitoring Surface Deformation over a Failing Rock Slope with the ESA Sentinels: Insights from Moosfluh Instability, Swiss Alps. Remote Sensing, 2018, 10, 672.	1.8	44
22	From Toppling to Sliding: Progressive Evolution of the Moosfluh Landslide, Switzerland. Journal of Geophysical Research F: Earth Surface, 2019, 124, 2899-2919.	1.0	44
23	Distribution and inferred age of exfoliation joints in the Aar Granite of the central Swiss Alps and relationship to Quaternary landscape evolution. Geomorphology, 2013, 201, 344-362.	1.1	40
24	Comprehensive geological dataset describing a crystalline rock mass for hydraulic stimulation experiments. Scientific Data, 2018, 5, 180269.	2.4	37
25	Impacts drive lunar rockfalls over billions of years. Nature Communications, 2020, 11, 2862.	5.8	36
26	Air circulation in deep fractures and the temperature field of an alpine rock slope. Earth Surface Processes and Landforms, 2011, 36, 1985-1996.	1.2	35
27	Consolidation settlements above deep tunnels in fractured crystalline rock: Part 1â€"Investigations above the Gotthard highway tunnel. International Journal of Rock Mechanics and Minings Sciences, 2008, 45, 1195-1210.	2.6	33
28	Consolidation settlements above deep tunnels in fractured crystalline rock: Part 2â€"Numerical analysis of the Gotthard highway tunnel case study. International Journal of Rock Mechanics and Minings Sciences, 2008, 45, 1211-1225.	2.6	33
29	Classification of slope processes based on multitemporal DInSAR analyses in the Himalaya of NW Bhutan. Remote Sensing of Environment, 2019, 233, 111408.	4.6	33
30	Geomechanical Properties of Shear Zones in the Eastern Aar Massif, Switzerland and their Implication on Tunnelling. Rock Mechanics and Rock Engineering, 2003, 36, 271-303.	2.6	31
31	Growth of exfoliation joints and near-surface stress orientations inferred from fractographic markings observed in the upper Aar valley (Swiss Alps). Tectonophysics, 2014, 626, 1-20.	0.9	31
32	Investigation of slope instabilities in NW Bhutan as derived from systematic DInSAR analyses. Engineering Geology, 2019, 259, 105111.	2.9	28
33	Hazard assessment and runout analysis for an unstable rock slope above an industrial site in the Riviera valley, Switzerland. Landslides, 2009, 6, 111-119.	2.7	27
34	Multi-stage structural and kinematic analysis of a retrogressive rock slope instability complex (Preonzo, Switzerland). Engineering Geology, 2019, 252, 27-42.	2.9	26
35	Deep Learning-Driven Detection and Mapping of Rockfalls on Mars. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 2831-2841.	2.3	26
36	Quantitative hydraulic analysis of pre-drillings and inflows to the Gotthard Base Tunnel (Sedrun Lot,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.9	25

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37	Paraglacial history and structure of the Moosfluh Landslide (1850â€“2016), Switzerland. Geomorphology, 2020, 355, 106677.	1.1	24
38	Reversible rock-slope deformations caused by cyclic water-table fluctuations in mountain slopes of the Central Alps, Switzerland. Hydrogeology Journal, 2012, 20, 73-91.	0.9	23
39	Automated Detection of Lunar Rockfalls Using a Convolutional Neural Network. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 3501-3511.	2.7	23
40	Factors controlling the permeability distribution in fault vein zones surrounding granitic intrusions (Ore Mountains/Germany). Journal of Geophysical Research: Solid Earth, 2017, 122, 1876-1899.	1.4	21
41	Fracture Network Characterization Using Stressâ€Based Tomography. Journal of Geophysical Research: Solid Earth, 2018, 123, 9324-9340.	1.4	21
42	Monitoring and analysis of active rockslide-glacier interactions (Moosfluh, Switzerland). Geomorphology, 2020, 371, 107414.	1.1	21
43	Detailed hydrogeological analysis of a deep-seated rockslide at the Gepatsch reservoir (Klasgarten,) Tj ETQq1 1 0.784314 rgBT /Overlo	0.9	18
44	Hydromechanical Rock Slope Damage During Late Pleistocene and Holocene Glacial Cycles in an Alpine Valley. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005494.	1.0	18
45	Borehole monitoring of thermo-hydro-mechanical rock slope processes adjacent to an actively retreating glacier. Geomorphology, 2020, 362, 107190.	1.1	18
46	Tracking Fluid Flow in Shallow Crustal Fault Zones: 1. Insights From Singleâ€Hole Permeability Estimates. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018200.	1.4	18
47	3D fluid flow in fault zones of crystalline basement rocks (Poehlaâ€Tellerhaeuser Ore Field, Ore) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.3	17
48	Multi-disciplinary characterizations of the BedrettoLab â€“ a new underground geoscience research facility. Solid Earth, 2022, 13, 301-322.	1.2	17
49	Hydromechanical processes and their influence on the stimulation effected volume: observations from a decameter-scale hydraulic stimulation project. Solid Earth, 2020, 11, 1699-1729.	1.2	16
50	Late Alpine brittle faulting in the Rotondo granite (Switzerland): deformation mechanisms and fault evolution. Swiss Journal of Geosciences, 2011, 104, 31-54.	0.5	15
51	Improved Characterization of Groundwater Flow in Heterogeneous Aquifers Using Granular Polyacrylamide (PAM) Gel as Temporary Grout. Water Resources Research, 2018, 54, 1410-1419.	1.7	15
52	Digital image correlationâ€“based analysis of hygroscopic expansion in Herrnholz granite. International Journal of Rock Mechanics and Minings Sciences, 2021, 146, 104859.	2.6	15
53	The Punatsangchhu-I dam landslide illuminated by InSAR multitemporal analyses. Scientific Reports, 2020, 10, 8304.	1.6	13
54	Characterizing flow zones in a fractured and karstified limestone aquifer through integrated interpretation of geophysical and hydraulic data. Hydrogeology Journal, 2007, 15, 225-240.	0.9	12

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55	Hydraulic subsurface measurements and hydrodynamic modelling as indicators for groundwater flow systems in the Rotondo granite, Central Alps (Switzerland). Hydrological Processes, 2014, 28, 255-278.	1.1	12
56	Tracking Fluid Flow in Shallow Crustal Fault Zones: 2. Insights From Crossâ€Hole Forced Flow Experiments in Damage Zones. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB019108.	1.4	12
57	Integrated multi-temporal analysis of the displacement behaviour and morphology of a deep-seated compound landslide (Cerentino, Switzerland). Engineering Geology, 2020, 270, 105577.	2.9	8
58	Changing Flow Paths Caused by Simultaneous Shearing and Fracturing Observed During Hydraulic Stimulation. Geophysical Research Letters, 2020, 47, e2019GL086135.	1.5	8
59	Global Drivers and Transport Mechanisms of Lunar Rockfalls. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006824.	1.5	8
60	Long-term transient groundwater pressure and deep infiltration in Alpine mountain slopes (Poschiavo) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.9	7
61	Understanding Failure and Runout Mechanisms of the Flims Rockslide/Rock Avalanche. Frontiers in Earth Science, 2020, 8, .	0.8	6
62	A Global Perspective on Lunar Granular Flows. Geophysical Research Letters, 2022, 49, .	1.5	6
63	Recharge response and kinematics of an unusual earthflow in Liechtenstein. Landslides, 2021, 18, 2383-2401.	2.7	5
64	Hydroâ€Mechanical Interactions of a Rock Slope With a Retreating Temperate Valley Glacier. Journal of Geophysical Research F: Earth Surface, 2022, 127, .	1.0	5
65	Robotic Total Station Monitoring in High Alpine Paraglacial Environments: Challenges and Solutions from the Great Aletsch Region (Valais, Switzerland). Geosciences (Switzerland), 2021, 11, 471.	1.0	4
66	Controls on Spatial and Temporal Patterns of Slope Deformation in an Alpine Valley. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2021JF006353.	1.0	4
67	Regionalâ€Scale Investigation of Preconditioning Factors of Rock Slope Instabilities in NW Bhutan. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005404.	1.0	3
68	Rock Bridge Failure Caused by the AysÃ¨n 2007 Earthquake (Patagonia, Chile). , 2015, , 775-780.		2
69	Rock Slope Temperature Evolution and Micrometerâ€Scale Deformation at a Retreating Glacier Margin. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2021JF006195.	1.0	2