Thomas Vikhamar Schuler

List of Publications by Year
in descending order

72 papers	2,763 citations	136950 32 h-index	214800 47 g-index
115 all docs	115 docs citations	115 times ranked	2573 citing authors

#	Article	IF	Citations
1	Glacier-surge mechanisms promoted by a hydro-thermodynamic feedback to summer melt. Cryosphere, 2015, 9, 197-215.	3.9	120
2	Transient thermal modeling of permafrost conditions in Southern Norway. Cryosphere, 2013, 7, 719-739.	3.9	113
3	Changes in Winter Warming Events in the Nordic Arctic Region. Journal of Climate, 2016, 29, 6223-6244.	3.2	109
4	Modeling the impact of wintertime rain events on the thermal regime of permafrost. Cryosphere, 2011, 5, 945-959.	3.9	95
5	Geometric changes and mass balance of the Austfonna ice cap, Svalbard. Cryosphere, 2010, 4, 21-34.	3.9	83
6	A ground temperature map of the North Atlantic permafrost region based on remote sensing and reanalysis data. Cryosphere, 2015, 9, 1303-1319.	3.9	82
7	Modeling the temperature evolution of Svalbard permafrost during the 20th and 21st century. Cryosphere, 2011, 5, 67-79.	3.9	81
8	A long-term dataset of climatic mass balance, snow conditions, and runoff in Svalbard (1957â€“2018). Cryosphere, 2019, 13, 2259-2280.	3.9	79
9	A statistical approach to represent small-scale variability of permafrost temperatures due to snow cover. Cryosphere, 2014, 8, 2063-2074.	3.9	78
10	Reconciling Svalbard Glacier Mass Balance. Frontiers in Earth Science, 2020, 8, .	1.8	77
11	Estimating the long-term calving flux of Kronebreen, Svalbard, from geodetic elevation changes and mass-balance modeling. Journal of Glaciology, 2012, 58, 119-133.	2.2	75
12	Diagnosing the decline in climatic mass balance of glaciers in Svalbard over 1957â€“2014. Cryosphere, 2017, 11, 191-215.	3.9	69
13	The relative age of mountain permafrost â€” estimation of Holocene permafrost limits in Norway. Global and Planetary Change, 2012, 92-93, 209-223.	3.5	67
14	CryoGRID 1.0: Permafrost Distribution in Norway estimated by a Spatial Numerical Model. Permafrost and Periglacial Processes, 2013, 24, 2-19.	3.4	63
15	Severe cloud contamination of MODIS Land Surface Temperatures over an Arctic ice cap, Svalbard. Remote Sensing of Environment, 2014, 142, 95-102.	11.0	61
16	Air and Ground Temperature Variations Observed along Elevation and Continentality Gradients in Southern Norway. Permafrost and Periglacial Processes, 2011, 22, 343-360.	3.4	59
17	Calibrating a surface mass-balance model for Austfonna ice cap, Svalbard. Annals of Glaciology, 2007, 46, 241-248.	1.4	56
18	Small-scale variation of snow in a regional permafrost model. Cryosphere, 2016, 10, 1201-1215.	3.9	56

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19	Thermal characteristics and impact of climate change on mountain permafrost in Iceland. Journal of Geophysical Research, 2007, 112, .	3.3	54
20	Contribution of snow and glacier melt to discharge for highly glacierised catchments in Norway. Hydrology and Earth System Sciences, 2014, 18, 511-523.	4.9	54
21	Recent fluctuations in the extent of the firn area of Austfonna, Svalbard, inferred from GPR. Annals of Glaciology, 2009, 50, 155-162.	1.4	52
22	The distribution of snow accumulation across the Austfonna ice cap, Svalbard: direct measurements and modelling. Polar Research, 2007, 26, 7-13.	1.6	50
23	The climatic mass balance of Svalbard glaciers: a 10-year simulation with a coupled atmosphereâ€“glacier mass balance model. Cryosphere, 2016, 10, 1089-1104.	3.9	50
24	Rate-and-state friction explains glacier surge propagation. Nature Communications, 2019, 10, 2823.	12.8	50
25	Modelling borehole temperatures in Southern Norway â€“ insights into permafrost dynamics during the 20th and 21st century. Cryosphere, 2012, 6, 553-571.	3.9	49
26	CryoSat-2 delivers monthly and inter-annual surface elevation change for Arctic ice caps. Cryosphere, 2015, 9, 1895-1913.	3.9	48
27	Hydraulic and mechanical properties of glacial sediments beneath Unteraargletscher, Switzerland: implications for glacier basal motion. Hydrological Processes, 2001, 15, 3525-3540.	2.6	44
28	Seasonal speed-up of two outlet glaciers of Austfonna, Svalbard, inferred from continuous GPS measurements. Cryosphere, 2012, 6, 453-466.	3.9	44
29	Parameter uncertainty analysis for an operational hydrological model using residual-based and limits of acceptability approaches. Hydrology and Earth System Sciences, 2018, 22, 5021-5039.	4.9	43
30	Diurnal variability of subglacial drainage conditions as revealed by tracer experiments. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	41
31	Distributed mass-balance and climate sensitivity modelling of Engabreen, Norway. Annals of Glaciology, 2005, 42, 395-401.	1.4	41
32	Ensemble-based assimilation of fractional snow-covered area satellite retrievals to estimate the snow distribution at Arctic sites. Cryosphere, 2018, 12, 247-270.	3.9	40
33	The Iceâ€Free Topography of Svalbard. Geophysical Research Letters, 2018, 45, 11,760.	4.0	32
34	Spatio-temporal variability of snowmelt across Svalbard during the period 2000â€“08 derived from QuikSCAT/SeaWinds scatterometry. Polar Research, 2011, 30, 5963.	1.6	30
35	Permanent fast flow versus cyclic surge behaviour: numerical simulations of the Austfonna ice cap, Svalbard. Journal of Glaciology, 2011, 57, 247-259.	2.2	28
36	Short term variations of tracer transit speed on alpine glaciers. Cryosphere, 2010, 4, 381-396.	3.9	27

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37	Use of a multilayer snow model to assess grazing conditions for reindeer. Annals of Glaciology, 2013, 54, 214-226.	1.4	27
38	Simulating climatic mass balance, seasonal snow development and associated freshwater runoff in the Kongsfjord basin, Svalbard (1980â€“2016). Journal of Glaciology, 2018, 64, 943-956.	2.2	27
39	Distribution of snow accumulation on the Svartisen ice cap, Norway, assessed by a model of orographic precipitation. Hydrological Processes, 2008, 22, 3998-4008.	2.6	26
40	Sensitivities of glacier mass balance and runoff to climate perturbations in Norway. Annals of Glaciology, 2015, 56, 79-88.	1.4	24
41	Meteorological conditions on an Arctic ice capâ€"8â€‰years of automatic weather station data from Austfonna, Svalbard. International Journal of Climatology, 2014, 34, 2047-2058.	3.5	23
42	Evaluation of gridded precipitation for norway using glacier massâ€balance measurements. Geografiska Annaler, Series A: Physical Geography, 2012, 94, 501-509.	1.5	21
43	Simulating Snow Redistribution and its Effect on Ground Surface Temperature at a Highâ€Arctic Site on Svalbard. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005673.	2.8	20
44	Flow separation on Zongo Glacier, Cordillera Real, Bolivia. Hydrological Processes, 1998, 12, 1911-1926.	2.6	18
45	Modeling the diurnal variation of tracer transit velocity through a subglacial channel. Journal of Geophysical Research, 2009, 114, .	3.3	18
46	Parameter uncertainty, refreezing and surface energy balance modelling at Austfonna ice cap, Svalbard, 2004-08. Annals of Glaciology, 2013, 54, 229-240.	1.4	18
47	Glacier mass balance of Norway 1961-2010 calculated by a temperature-index model. Annals of Glaciology, 2013, 54, 32-40.	1.4	17
48	Implementation of a physically based water percolation routine in the Crocus/SURFEX (V7.3) snowpack model. Geoscientific Model Development, 2017, 10, 3547-3566.	3.6	17
49	Breaching of an ice dam at Qorlortossup tasia, south Greenland. Annals of Glaciology, 2005, 42, 297-302.	1.4	16
50	A Comparison between Simulated and Observed Surface Energy Balance at the Svalbard Archipelago. Journal of Applied Meteorology and Climatology, 2015, 54, 1102-1119.	1.5	16
51	Accelerating future mass loss of Svalbard glaciers from a multi-model ensemble. Journal of Glaciology, 2021, 67, 485-499.	2.2	16
52	Comparison of Modeled Water Input and Measured Discharge Prior to a Release Event: Unteraargletscher, Bernese Alps, Switzerland. Hydrology Research, 2002, 33, 27-46.	2.7	15
53	Modeling Winter Precipitation Over the Juneau Icefield, Alaska, Using a Linear Model of Orographic Precipitation. Frontiers in Earth Science, 2018, 6, .	1.8	15
54	Timeâ€Lapse Photogrammetry of Distributed Snow Depth During Snowmelt. Water Resources Research, 2019, 55, 7916-7926.	4.2	13

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55	Measured and Modeled Historical Precipitation Trends for Svalbard. Journal of Hydrometeorology, 2020, 21, 1279-1296.	1.9	13
56	Coupled machine learning and the limits of acceptability approach applied in parameter identification for a distributed hydrological model. Hydrology and Earth System Sciences, 2020, 24, 4641-4658.	4.9	12
57	Ground-water intrusions in a mine beneath HÃ¸ganesbreen, Svalbard: assessing the possibility of evacuating water subglacially. Annals of Glaciology, 2003, 37, 269-274.	1.4	10
58	Measurement report: Spatial variations in ionic chemistry and water-stable isotopes in the snowpack on glaciers across Svalbard during the 2015â€“2016Âsnow accumulation season. Atmospheric Chemistry and Physics, 2021, 21, 3163-3180.	4.9	10
59	Sval_Imp: a gridded forcing dataset for climate change impact research on Svalbard. Earth System Science Data, 2020, 12, 875-885.	9.9	10
60	Elucidating changes in the degree of tracer dispersion in a subglacial channel. Annals of Glaciology, 2003, 37, 275-280.	1.4	8
61	Improving the Informational Value of MODIS Fractional Snow Cover Area Using Fuzzy Logic Based Ensemble Smoother Data Assimilation Frameworks. Remote Sensing, 2019, 11, 28.	4.0	8
62	Pressure and inertia sensing drifters for glacial hydrology flow path measurements. Cryosphere, 2020, 14, 1009-1023.	3.9	7
63	Surface temperatures and their influence on the permafrost thermal regime in high-Arctic rock walls on Svalbard. Cryosphere, 2021, 15, 2491-2509.	3.9	7
64	CryoSat-2 interferometric mode calibration and validation: A case study from the Austfonna ice cap, Svalbard. Remote Sensing of Environment, 2022, 269, 112805.	11.0	7
65	Analysis of the first jÃ¶kulhlaup at BlÃ¥mannsisen, northern Norway, and implications for future events. Annals of Glaciology, 2005, 42, 35-41.	1.4	6
66	Elemental and water-insoluble organic carbon in Svalbard snow: a synthesis of observations during 2007â€“2018. Atmospheric Chemistry and Physics, 2021, 21, 3035-3057.	4.9	6
67	A Consistent Framework for Coupling Basal Friction With Subglacial Hydrology on Hardâ€Bedded Glaciers. Geophysical Research Letters, 2022, 49, .	4.0	6
68	Assessing the future evolution of meltwater intrusions into a mine below Gruvefonna, Svalbard. Annals of Glaciology, 2005, 42, 262-268.	1.4	5
69	Comparison of snow accumulation events on two High-Arctic glaciers to model-derived and observed precipitation. Polar Research, 2019, 38, .	1.6	5
70	Subglacial permafrost dynamics and erosion inside subglacial channels driven by surface events in Svalbard. Cryosphere, 2020, 14, 4217-4231.	3.9	5
71	Sensitivity of subglacial drainage to water supply distribution at the Kongsfjord basin, Svalbard. Cryosphere, 2021, 15, 2719-2738.	3.9	4
72	A Machine Learning Framework to Automate the Classification of Surgeâ€Type Glaciers in Svalbard. Journal of Geophysical Research F: Earth Surface, 2022, 127, .	2.8	4