

# Tobias Jonas

## List of Publications by Year in descending order

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Version: 2024-02-01

52  
papers

2,725  
citations

172457

29  
h-index

182427

51  
g-index

54  
all docs

54  
docs citations

54  
times ranked

3271  
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploring snow distribution dynamics in steep forested slopes with UAV-borne LiDAR. <i>Cold Regions Science and Technology</i> , 2022, 200, 103587.	3.5	9
2	Fractional snow-covered area: scale-independent peak of winter parameterization. <i>Cryosphere</i> , 2021, 15, 615-632.	3.9	10
3	Increasing the Physical Representation of Forest-Snow Processes in Coarse-Resolution Models: Lessons Learned From Upscaling Hyper-Resolution Simulations. <i>Water Resources Research</i> , 2021, 57, e2020WR029064.	4.2	16
4	Effect of Forest Canopy Structure on Wintertime Land Surface Albedo: Evaluating CLM5 Simulations With In-situ Measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034118.	3.3	10
5	Snow interception modelling: Isolated observations have led to many land surface models lacking appropriate temperature sensitivities. <i>Hydrological Processes</i> , 2021, 35, e14274.	2.6	15
6	Hatching phenology is lagging behind an advancing snowmelt pattern in a high-alpine bird. <i>Scientific Reports</i> , 2021, 11, 22191.	3.3	11
7	Enhancing airborne LiDAR data for improved forest structure representation in shortwave transmission models. <i>Remote Sensing of Environment</i> , 2020, 249, 112017.	11.0	17
8	Toward Snow Cover Estimation in Mountainous Areas Using Modern Data Assimilation Methods: A Review. <i>Frontiers in Earth Science</i> , 2020, 8, .	1.8	44
9	Process-Level Evaluation of a Hyper-Resolution Forest Snow Model Using Distributed Multisensor Observations. <i>Water Resources Research</i> , 2020, 56, e2020WR027572.	4.2	21
10	Land surface phenology and greenness in Alpine grasslands driven by seasonal snow and meteorological factors. <i>Science of the Total Environment</i> , 2020, 725, 138380.	8.0	22
11	Resolving Small-Scale Forest Snow Patterns Using an Energy Balance Snow Model With a One-Layer Canopy. <i>Water Resources Research</i> , 2020, 56, e2019WR026129.	4.2	32
12	HPEval: A canopy shortwave radiation transmission model using high-resolution hemispherical images. <i>Agricultural and Forest Meteorology</i> , 2020, 284, 107903.	4.8	13
13	Revisiting Snow Cover Variability and Canopy Structure Within Forest Stands: Insights From Airborne Lidar Data. <i>Water Resources Research</i> , 2019, 55, 6198-6216.	4.2	56
14	Estimating below-canopy light regimes using airborne laser scanning: An application to plant community analysis. <i>Ecology and Evolution</i> , 2019, 9, 9149-9159.	1.9	22
15	Spatially Continuous Characterization of Forest Canopy Structure and Subcanopy Irradiance Derived from Handheld Radiometer Surveys. <i>Journal of Hydrometeorology</i> , 2019, 20, 1417-1433.	1.9	12
16	Comparing Aerial Lidar Observations With Terrestrial Lidar and Snow-Probe Transects From NASA's 2017 SnowEx Campaign. <i>Water Resources Research</i> , 2019, 55, 6285-6294.	4.2	49
17	Shading by Trees and Fractional Snow Cover Control the Subcanopy Radiation Budget. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 3195-3207.	3.3	25
18	Simulation of Longwave Enhancement in Boreal and Montane Forests. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 13,731.	3.3	10

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19	Measuring snow ablation rates in alpine terrain with a mobile multioffset ground-penetrating radar system. <i>Hydrological Processes</i> , 2018, 32, 3272-3282.	2.6	14
20	Influence of canopy shading and snow coverage on effective albedo in a snow-dominated evergreen needleleaf forest. <i>Remote Sensing of Environment</i> , 2018, 214, 48-58.	11.0	30
21	Spatio-temporal aspects of snowpack runoff formation during rain on snow. <i>Hydrological Processes</i> , 2018, 32, 3434-3445.	2.6	9
22	Recent Evidence of Large-Scale Receding Snow Water Equivalent in the European Alps. <i>Journal of Hydrometeorology</i> , 2017, 18, 1021-1031.	1.9	85
23	Improving representation of canopy temperatures for modeling subcanopy incoming longwave radiation to the snow surface. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 9154-9172.	3.3	40
24	Rainwater propagation through snowpack during rain-on-snow sprinkling experiments under different snow conditions. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 4973-4987.	4.9	19
25	Modelling liquid water transport in snow under rain-on-snow conditions "considering preferential flow. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 1741-1756.	4.9	44
26	Influence of Initial Snowpack Properties on Runoff Formation during Rain-on-Snow Events. <i>Journal of Hydrometeorology</i> , 2016, 17, 1801-1815.	1.9	70
27	Measurement of Incoming Radiation below Forest Canopies: A Comparison of Different Radiometer Configurations. <i>Journal of Hydrometeorology</i> , 2016, 17, 853-864.	1.9	28
28	Representing spatial variability of forest snow: Implementation of a new interception model. <i>Water Resources Research</i> , 2016, 52, 1208-1226.	4.2	34
29	Modeling subcanopy incoming longwave radiation to seasonal snow using air and tree trunk temperatures. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 1220-1235.	3.3	38
30	Improved snow interception modeling using canopy parameters derived from airborne <i>DAR</i> data. <i>Water Resources Research</i> , 2015, 51, 5041-5059.	4.2	50
31	Evaluating snow models with varying process representations for hydrological applications. <i>Water Resources Research</i> , 2015, 51, 2707-2723.	4.2	94
32	Snow depth mapping in high-alpine catchments using digital photogrammetry. <i>Cryosphere</i> , 2015, 9, 229-243.	3.9	94
33	Novel forest structure metrics from airborne LiDAR data for improved snow interception estimation. <i>Agricultural and Forest Meteorology</i> , 2015, 208, 40-49.	4.8	36
34	A two-layer canopy model with thermal inertia for an improved snowpack energy balance below needleleaf forest (model SNOWPACK, version 3.2.1, revision 741). <i>Geoscientific Model Development</i> , 2015, 8, 2379-2398.	3.6	35
35	Model simulations of the modulating effect of the snow cover in a rain-on-snow event. <i>Hydrology and Earth System Sciences</i> , 2014, 18, 4657-4669.	4.9	31
36	A satellite-based snow cover climatology (1985-2011) for the European Alps derived from AVHRR data. <i>Cryosphere</i> , 2014, 8, 73-90.	3.9	73

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37	Canopy closure, LAI and radiation transfer from airborne LiDAR synthetic images. <i>Agricultural and Forest Meteorology</i> , 2014, 197, 158-168.	4.8	86
38	Alpine snow cover in a changing climate: a regional climate model perspective. <i>Climate Dynamics</i> , 2013, 41, 735-754.	3.8	99
39	Validation of a modified snow cover retrieval algorithm from historical 1-km AVHRR data over the European Alps. <i>Remote Sensing of Environment</i> , 2012, 121, 497-515.	11.0	44
40	Dynamics of snow ablation in a small Alpine catchment observed by repeated terrestrial laser scans. <i>Hydrological Processes</i> , 2012, 26, 1574-1585.	2.6	86
41	Changes in alpine plant growth under future climate conditions. <i>Biogeosciences</i> , 2010, 7, 2013-2024.	3.3	64
42	The role of snow interception in winter daytime radiation processes of a coniferous subalpine forest. <i>Hydrological Processes</i> , 2009, 23, 2498-2512.	2.6	51
43	Simulations of future snow cover and discharge in Alpine headwater catchments. <i>Hydrological Processes</i> , 2009, 23, 95-108.	2.6	168
44	Comparison of different automatic methods for estimating snow water equivalent. <i>Cold Regions Science and Technology</i> , 2009, 57, 107-115.	3.5	69
45	Evaluation of forest snow processes models (SnowMIP2). <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	290
46	How alpine plant growth is linked to snow cover and climate variability. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	175
47	Mortality pattern of the Alpine chamois: the influence of snow meteorological factors. <i>Annals of Glaciology</i> , 2008, 49, 56-62.	1.4	26
48	Alpine Grassland Phenology as Seen in AVHRR, VEGETATION, and MODIS NDVI Time Series - a Comparison with In Situ Measurements. <i>Sensors</i> , 2008, 8, 2833-2853.	3.8	100
49	Observations of a quasi shear-free lacustrine convective boundary layer: Stratification and its implications on turbulence. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	65
50	CO <sub>2</sub> exchange between air and water in an Arctic Alaskan and midlatitude Swiss lake: Importance of convective mixing. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	153
51	Surface turbulence in natural waters: A comparison of large eddy simulations with microstructure observations. <i>Journal of Geophysical Research</i> , 2000, 105, 1195-1207.	3.3	16
52	Internal wave generation in lakes with very slow flow. , 1999, , .		8