Charles Fierz

List of Publications by Year
in descending order

58 papers	2,835 citations	185998 28 h-index	182168 51 g-index
77 all docs	77 docs citations	77 times ranked	1776 citing authors

#	Article	IF	Citations
1	Scientific and Human Errors in a Snow Model Intercomparison. Bulletin of the American Meteorological Society, 2021, 102, E61-E79.	1.7	38
2	Application of physical snowpack models in support of operational avalanche hazard forecasting: A status report on current implementations and prospects for the future. Cold Regions Science and Technology, 2020, 170, 102910.	1.6	55
3	Intercomparison of measurements of bulk snow density and water equivalent of snow cover with snow core samplers: Instrumental bias and variability induced by observers. Hydrological Processes, 2020, 34, 3120-3133.	1.1	27
4	The RHOSSA campaign: multi-resolution monitoring of the seasonal evolution of the structure and mechanical stability of an alpine snowpack. Cryosphere, 2020, 14, 1829-1848.	1.5	19
5	Deep ice layer formation in an alpine snowpack: monitoring and modeling. Cryosphere, 2020, 14, 3449-3464.	1.5	6
6	Meteorological and evaluation datasets for snow modelling at 10 reference sites: description of in situ and bias-corrected reanalysis data. Earth System Science Data, 2019, 11, 865-880.	3.7	36
7	IACS: past, present, and future of the International Association of Cryospheric Sciences. History of Geo- and Space Sciences, 2019, 10, 97-107.	0.1	5
8	An assessment of sub-snow GPS for quantification of snow water equivalent. Cryosphere, 2018, 12, 3161-3175.	1.5	15
9	Representation of Horizontal Transport Processes in Snowmelt Modeling by Applying a Footprint Approach. Frontiers in Earth Science, 2018, 6, .	0.8	12
10	ESM-SnowMIP: assessing snow models and quantifying snow-related climate feedbacks. Geoscientific Model Development, 2018, 11, 5027-5049.	1.3	119
11	Investigation of a wind-packing event in Queen Maud Land, Antarctica. Cryosphere, 2018, 12, 2923-2939.	1.5	16
12	Wind Tunnel Experiments: Influence of Erosion and Deposition on Wind-Packing of New Snow. Frontiers in Earth Science, 2018, 6, .	0.8	11
13	Impact of climate change in Switzerland on socioeconomic snow indices. Theoretical and Applied Climatology, 2017, 127, 875-889.	1.3	34
14	Wind tunnel experiments: saltation is necessary for wind-packing. Journal of Glaciology, 2017, 63, 950-958.	1.1	8
15	Intercomparison of snow density measurements: bias, precision, and vertical resolution. Cryosphere, 2016, 10, 371-384.	1.5	90
16	Simulating ice layer formation under the presence of preferential flow in layered snowpacks. Cryosphere, 2016, 10, 2731-2744.	1.5	56
17	Assessing wet snow avalanche activity using detailed physics based snowpack simulations. Geophysical Research Letters, 2016, 43, 5732-5740.	1.5	39
18	Simulations of 21st century snow response to climate change in Switzerland from a set of <scp>RCMs</scp>. International Journal of Climatology, 2015, 35, 3262-3273.	1.5	51

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19	Verification of the multi-layer SNOWPACK model with different water transport schemes. Cryosphere, 2015, 9, 2271-2293.	1.5	75
20	Model simulations of the modulating effect of the snow cover in a rain-on-snow event. Hydrology and Earth System Sciences, 2014, 18, 4657-4669.	1.9	31
21	Solving Richards Equation for snow improves snowpack meltwater runoff estimations in detailed multi-layer snowpack model. Cryosphere, 2014, 8, 257-274.	1.5	142
22	Evaluation of modelled snow depth and snow water equivalent at three contrasting sites in Switzerland using SNOWPACK simulations driven by different meteorological data input. Cold Regions Science and Technology, 2014, 99, 27-37.	1.6	71
23	Hardness estimation and weak layer detection in simulated snow stratigraphy. Cold Regions Science and Technology, 2014, 103, 82-90.	1.6	16
24	Corrigendum to "Forcing the snow-cover model SNOWPACK with forecasted weather data" published in The Cryosphere, 5, 1115â€“1125, 2011. Cryosphere, 2013, 7, 511-513.	1.5	15
25	Event-driven deposition of snow on the Antarctic Plateau: analyzing field measurements with SNOWPACK. Cryosphere, 2013, 7, 333-347.	1.5	67
26	Forcing the snow-cover model SNOWPACK with forecasted weather data. Cryosphere, 2011, 5, 1115-1125.	1.5	48
27	Temperature Profile of Snowpack. Encyclopedia of Earth Sciences Series, 2011, , 1151-1154.	0.1	3
28	Micrometeorological and morphological observations of surface hoar dynamics on a mountain snow cover. Water Resources Research, 2010, 46, .	1.7	61
29	Assessment of snow transport in avalanche terrain. Cold Regions Science and Technology, 2008, 51, 240-252.	1.6	81
30	Variations in snow surface properties at the snowpack-depth, the slope and the basin scale. Journal of Glaciology, 2008, 54, 846-856.	1.1	8
31	Yu.A. Dovgaluk and T.A. Pershina, 2005. Atlas snezhinok (snezhnykh kristallov) [Atlas of snowflakes (snow crystals)] St Petersburg, Gidrometeoizdat. 139pp., paperback, RR200. (In Russian with an English) Tj ETQq1 1 0.784314 rgBT /Ov	1.1	4
32	Assessment of techniques for analyzing snow crystals in two dimensions. Annals of Glaciology, 2008, 48, 103-112.	2.8	8
33	Evaluating and improving the stability predictions of the snow cover model SNOWPACK. Cold Regions Science and Technology, 2006, 46, 52-59.	1.6	49
34	Modeling snow instability with the snow-cover model SNOWPACK. Annals of Glaciology, 2004, 38, 331-338.	2.8	44
35	SN_GUI: a graphical user interface for snowpack modeling. Computers and Geosciences, 2004, 30, 809-816.	2.0	11
36	Heat flow from wet to dry snowpack layers and associated faceting. Annals of Glaciology, 2004, 38, 187-194.	2.8	9

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37	Validation of the energy budget of an alpine snowpack simulated by several snow models (Snow MIP) Tj ETQq1 1 0.784314 rgBT /Overl	2.8	212
38	Evaluation of snow-surface energy balance models in alpine terrain. Journal of Hydrology, 2003, 282, 76-94.	2.3	46
39	A physical SNOWPACK model for the Swiss avalanche warning. Cold Regions Science and Technology, 2002, 35, 169-184.	1.6	364
40	A physical SNOWPACK model for the Swiss avalanche warning. Cold Regions Science and Technology, 2002, 35, 147-167.	1.6	402
41	Assessment of the microstructure-based snow-cover model SNOWPACK: thermal and mechanical properties. Cold Regions Science and Technology, 2001, 33, 123-131.	1.6	40
42	An objective snow profile comparison method and its application to SNOWPACK. Cold Regions Science and Technology, 2001, 33, 253-261.	1.6	40
43	A model for kinetic grain growth. Annals of Glaciology, 2001, 32, 1-6.	2.8	29
44	Simulation of microwave emission from physically modeled snowpacks. Annals of Glaciology, 2000, 31, 397-405.	2.8	52
45	Quantifying grain-shape changes in snow subjected to large temperature gradients. Annals of Glaciology, 2000, 31, 439-444.	2.8	21
46	Field observation and modelling of weak-layer evolution. Annals of Glaciology, 1998, 26, 7-13.	2.8	15
47	Field observation and modelling of weak-layer evolution. Annals of Glaciology, 1998, 26, 7-13.	2.8	21
48	Modelling the snow cover in a complex Alpine topography. Annals of Glaciology, 1997, 25, 312-316.	2.8	8
49	Modelling the snow cover in a complex Alpine topography. Annals of Glaciology, 1997, 25, 312-316.	2.8	14
50	Snow mechanics and avalanche formation: field experiments on the dynamic response of the snow cover. Surveys in Geophysics, 1995, 16, 621-633.	2.1	34
51	Transport properties of the Cu/Ni multilayer system. Journal of Physics Condensed Matter, 1994, 6, 6151-6162.	0.7	12
52	Transport properties of Al/Ni and Al/Ag multilayer systems. Journal of Physics Condensed Matter, 1991, 3, 9067-9078.	0.7	10
53	Superconductor/ferromagnet boundary resistances. Journal of Physics Condensed Matter, 1990, 2, 9701-9706.	0.7	51
54	Residual resistivity in cerium heavy fermion compounds. Journal of Magnetism and Magnetic Materials, 1988, 76-77, 285-286.	1.0	24

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55	Transport properties of CeAl3under pressure. Journal of Applied Physics, 1988, 63, 3899-3901.	1.1	27
56	Thermoelectric power of Î±- and Î²-cerium. Journal of Magnetism and Magnetic Materials, 1987, 63-64, 560-562.	1.0	1
57	Thermopower of cerium. Journal of Magnetism and Magnetic Materials, 1985, 47-48, 517-520.	1.0	5
58	Low-temperature specific heat of USb and UTe. Solid State Communications, 1983, 47, 803-806.	0.9	18