Evaluating continuous and autonomous snow water equivalent measurements by a cosmic ray sensor on a Swiss glacier

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Field data

Table 1 shows the summary of each field survey conducted on Plaine Morte with all observed and calculated parameters.

Table 1. All field campaigns with measurements methods, uncertainty definitions and resulting snowpack properties with uncertainties and standard deviations. The dates marked with a star correspond to the summary of the single daily measurements.

Date	r_{tube} [cm]	Σr_{tube} [cm]	Σm_{scale} [kg]	Σm_{mass} [kg]	Σl [cm]	n	SD [cm]	s_{SD} [cm]	$\bar{\sigma}_{SD}$ [%]	SWE [cm]	s_{SWE} [cm]	$\bar{\sigma}_{SWE}$ [%]	ρ [kg m ⁻³]	s_{ρ} [kg m ⁻³]	$\bar{\sigma}_{\rho}$ [%]
09.12.2016	4.75	0.10	0.05	0.05	0.5	6	90.0	3.4	2%	25.2	0.7	6%	279.7	6.6	6%
23.01.2017	4.75	0.10	0.05	0.05	1.0	4	153.8	4.5	1%	43.5	2.1	6%	282.8	7.0	6%
23.01.2017	4.75	0.10	0.02	0.05	1.0	4	153.8	4.5	1%	43.1	2.6	7%	280.4	10.5	7%
23.01.2017	4.50	0.10	0.05	0.10	1.0	4	153.0	4.5	1%	42.0	1.2	6%	274.7	10.1	6%
23.01.2017	4.50	0.10	0.10	0.10	1.0	4	153.0	4.5	1%	41.0	0.8	6%	268.4	12.5	6%
23.01.2017*						16	153.4	4.1	1%	42.4	1.9	6%	276.6	10.8	6%
27.03.2017	4.50	0.10	0.10	0.10	1.0	2	299.0	0.0	2%	117.8	4.0	7%	393.9	13.4	7%
10.05.2017	4.50	0.10	0.05	0.10	1.0	2	326.5	3.5	2%	133.2	0.0	9%	408.1	4.5	9%
10.05.2017	4.00	0.10	0.05	0.15	1.0	3	329.7	1.2	2%	128.1	1.8	10%	388.6	4.1	9%
10.05.2017*						5	328.4	2.6	2%	130.2	3.1	9%	396.4	11.3	9%
05.12.2017	4.75	0.10	0.05	0.05	1.0	8	150.2	3.2	1%	45.3	2.4	6%	301.6	17.6	6%
19.12.2017	4.75	0.10	0.05	0.10	1.0	8	223.5	1.2	1%	57.5	0.8	12%	257.4	4.0	12%
10.01.2018	4.00	0.10	0.05	0.15	1.0	3	309.0	0.0	1%	93.9	2.5	11%	303.9	8.1	11%
22.02.2018	4.00	0.10	0.05	0.15	1.0	3	424.0	0.0	0%	159.7	2.5	10%	376.7	5.8	10%
06.04.2018	4.15	0.15	0.05	0.15	1.0	1	520.0	-	1%	233.4	-	12%	448.9	-	12%
24.05.2018	4.15	0.15	0.05	0.15	1.0	2	357.5	2.1	1%	193.4	2.0	12%	540.9	8.8	12%