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Supplement of

Predicting abundance and variability of ice nucleating particles in precipitation at the high-altitude observatory Jungfraujoch

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Table of data

This table presents the most important parameters measured at Jungfraujoch during the 14 sampling campaigns reported in the paper.

f_V represents the fraction of residual water vapour in a precipitating air mass. Season scores correspond to: 1 = winter; 2 = spring; 3 = autumn; 4 = summer. Source region scores correspond to: 1 = north Europe; 2 = mixed; 3 = south Europe. Values of $N_{>0.5}$ derived from PM₁₀ (as explained in paragraph 2.2) are reported in red.

Date of start sampling	Start sampling (UTC)	End sampling (UTC)	INPs ₋₈ mL ⁻¹	Temperature (°C)	$\delta^{18}\text{O}_{\text{SNOW}}$	f_V	Wind speed (km h ⁻¹)	Precipitation (mm h ⁻¹)	$\log(N_{>0.5} \text{ m}^{-3})$	Season score	Source region score	$\log(\text{NO}_y/\text{CO})$
07.12.2012	11.00 h	13.15 h	0.44	-15.0	-32.25	0.07	32.5	2.5	4.66	1	2	-2.50
07.12.2012	13.20 h	15.30 h	0.22	-16.9	-27.84	0.10	27.8	1.6	4.97	1	2	-2.34
07.12.2012	15.50 h	17.20 h	0.22	-18.9	-24.48	0.13	26.2	2.2	5.17	1	2	-2.14
07.12.2012	17.30 h	21.00h	2.11	-20.5	-26.90	0.11	33.9	0.4	5.22	1	1	-2.18
07.12.2012	22.00 h	05.30 h	0.89	-20.4	-31.47	0.07	37.4	1.5	4.81	1	1	-2.10
08.12.2012	05.30 h	09.00 h		-20.7	-30.79	0.08	32.7	3.4	5.21	1	1	-1.83
09.12.2012	17.15 h	19.00 h	1.36	-14.0	-22.82	0.15	54.9	2.3	4.76	1	2	-2.59
09.12.2012	19.00 h	21.50 h	1.61	-14.5	-20.96	0.18	53.6	1.1	4.93	1	1	-2.61
09.12.2012	22.30 h	05.00h	3.49	-15.9	-21.29	0.17	66.2	0.4	5.05	1	1	-2.46
10.12.2012	05.30 h	08.00 h	4.09	-17.8	-17.00	0.25	58.3	1.8	4.82	1	1	-2.31
10.12.2012	10.00 h	11.00 h	2.37	-19.0	-18.27	0.22	50.3	4.8	4.81	1	2	-2.05
10.12.2012	11.15 h	13.30 h	6.88	-20.2	-19.47	0.20	51.0	1.2	4.92	1	2	-2.13
10.12.2012	14.15 h	15.45 h	3.78	-20.7	-18.44	0.22	57.6	1.8	4.90	1	2	-2.09
10.12.2012	16.00 h	17.30 h	4.72	-20.8	-19.91	0.19	57.5	3.2	6.68	1	2	-2.01
19.01.2013	14.00 h	16.00h	0.44	-8.2	-26.20	0.11	18.1	0.5	4.25	1	3	-2.45
19.01.2013	16.10 h	17.30 h		-8.7	-25.07	0.12	20.9	1.1	4.45	1	3	-2.43
19.01.2013	17.30 h	20.00 h	1.12	-8.0	-22.77	0.14	31.2	0.3	4.39	1	2	-2.45
19.01.2013	21.00 h	05.00 h	7.70	-9.7	-21.09	0.17	43.8	0.1	4.94	1	3	-2.31
20.01.2013	05.00 h	11.00 h	5.34	-11.0	-17.35	0.23	41.6	0.1	5.69	1	3	-2.26
20.01.2013	19.00 h	21.00 h	2.89	-13.7	-17.90	0.22	45.3	0.2	4.12	1	2	-2.28
20.01.2013	22.00 h	04.30 h		-13.8	-19.95	0.18	38.3	0.3	3.94	1	2	-2.31
21.01.2013	04.30 h	08.00 h	0.21	-13.8	-23.47	0.13	19.0	0.7	3.90	1	2	-2.36
09.02.2013	02.00 h	05.00 h	0.43	-25.8	-26.06	0.12	29.4	1.4	5.00	1	1	
09.02.2013	05.00 h	07.45 h	0.65	-26.4	-25.10	0.13	31.9	1.4	5.23	1	1	-2.05
09.02.2013	07.45 h	09.45 h	0.21	-27.0	-25.82	0.12	30.7	0.9	5.23	1	1	-2.03
09.02.2013	09.45 h	12.15 h	0.21	-27.1	-27.50	0.11	22.6	0.7	5.44	1	1	
09.02.2013	14.00 h	18.30 h		-27.3	-25.40	0.12	24.0	0.5	5.44	1	1	-2.00
10.02.2013	23.00 h	05.00 h		-14.9	-30.47	0.08	12.2	0.3	4.90	1	1	-2.68

11.02.2013	05.00 h	09.30 h	0.88	-17.3	-28.13	0.09	26.4	0.1	4.99	1	2	-2.38
11.02.2013	12.00 h	14.30 h	0.22	-15.4	-34.73	0.05	16.5	0.4	5.25	1	2	-2.37
11.02.2013	14.30 h	17.00 h	1.11	-19.0	-36.05	0.05	23.7	0.4	5.12	1	2	-2.37
11.02.2013	17.00 h	21.00 h	1.11	-19.8	-36.24	0.05	20.4	0.2	4.98	1	2	-2.32
11.02.2013	21.30 h	04.30 h	0.43	-19.6	-34.62	0.05	20.8	0.8	5.04	1	2	-2.27
12.02.2013	04.30 h	07.00 h	0.21	-20.2	-33.93	0.06	20.4	1.0	5.06	1	2	-2.16
10.03.2013	23.00 h	06.00 h	0.21	-13.6	-16.38	0.27	13.0	0.1	5.49	2	2	-2.21
11.03.2013	07.00 h	11.00 h	0.21	-12.7	-17.18	0.25	10.3	0.4	4.85	2	2	-2.43
11.03.2013	11.00 h	15.00 h		-12.0	-17.10	0.25	1.7	0.4	4.76	2	2	-2.42
12.03.2013	06.00 h	09.30 h	0.21	-13.1	-22.20	0.16	6.7	0.1	4.92	2	2	-2.48
12.03.2013	16.00 h	18.00 h	2.35	-14.1	-18.73	0.22	11.7	0.2	5.24	2	2	-2.17
13.03.2013	21.00 h	05.00 h	1.35	-22.4	-28.01	0.10	23.8	0.2	5.18	2	1	-1.84
14.03.2013	05.00 h	08.00 h	2.09	-24.3	-29.26	0.09	38.7	0.4	5.63	2	1	-1.78
19.04.2013	11.40 h	13.40 h	1.59	-6.2	-9.09	0.47	19.1	2.7	6.03	2	3	
19.04.2013	13.40 h	15.30 h	0.21	-7.1	-13.48	0.35	13.7	2.4	5.26	2	1	
19.04.2013	15.30 h	18.00 h	3.16	-10.9	-15.82	0.28	21.6	0.8	4.64	2	1	
19.04.2013	18.00 h	20.00 h	1.35	-12.8	-18.55	0.22	25.0	2.0	3.98	2	1	
19.04.2013	21.30 h	04.00 h	0.21	-11.6	-14.27	0.32	14.4	1.9	4.69	2	2	
20.04.2013	04.30 h	10.30 h	8.06	-10.0	-12.74	0.33	56.2	0.9	4.63	2	2	
20.04.2013	10.30 h	14.30 h	0.65	-8.5	-14.82	0.28	48.6	0.9	4.08	2	2	
20.04.2013	14.30 h	17.30 h	1.35	-8.1	-14.95	0.27	40.7	0.9	4.03	2	2	
20.04.2013	17.30 h	19.30 h	1.11	-8.4	-12.71	0.33	42.8	0.9	3.79	2	2	
22.05.2013	12.10 h	13.45 h		-8.4	-16.55	0.26	23.8	6.3	4.30	2	1	
22.05.2013	13.45 h	15.30 h	0.65	-9.3	-14.87	0.30	31.3	5.6	4.73	2	1	
22.05.2013	15.30 h	17.15 h	1.35	-9.9	-14.13	0.32	33.7	1.8	5.23	2	1	
22.05.2013	17.30 h	19.30 h	1.84	-10.0	-14.55	0.31	33.9	2.2	4.79	2	1	
22.05.2013	21.00 h	01.00 h	1.11	-11.3	-15.27	0.29	28.0	1.4	5.05	2	1	
23.05.2013	12.30 h	15.15 h	18.14	-11.1	-12.30	0.38	15.8	0.3	5.22	2	1	
23.05.2013	15.15 h	16.15 h	4.04	-10.8	-13.43	0.34	19.4	3.9	5.07	2	1	
23.05.2013	16.15 h	17.45 h	0.65	-11.5	-14.83	0.30	19.4	3.6	4.75	2	1	
23.05.2013	17.45 h	19.00 h	0.43	-13.2	-18.14	0.23	17.1	2.1	4.90	2	1	
23.05.2013	20.45 h	04.00 h	1.35	-16.3	-16.19	0.26	27.7	0.6	5.38	2	1	
24.05.2013	04.00 h	06.00h	0.88	-17.2	-18.76	0.21	29.5	1.0	5.26	2	1	
20.06.2013	01.00 h	04.00 h	113.92	0.3	-4.94	0.67	66.3	0.2	6.37	4	3	
20.06.2103	04.00 h	08.00 h	68.09	-0.1	-7.14	0.55	61.9	0.7	6.27	4	3	
20.06.2013	09.00 h	11.00 h	94.55	0.0	-5.42	0.64	66.0	0.2	6.06	4	3	
20.06.2013	11.00 h	13.30 h	182.55	-0.8	-9.01	0.46	75.2	0.9	6.04	4	3	
20.06.2013	13.30 h	15.30 h	159.04	-1.3	-8.22	0.49	89.1	0.7	5.69	4	3	
20.06.2013	15.30 h	17.30 h	72.09	-1.5	-8.35	0.48	74.8	1.3	5.61	4	3	
20.06.2013	19.30 h	02.00 h	16.13	-1.0	-7.32	0.53	40.2	1.2	5.83	4	3	
21.06.2013	17.00 h	18.30 h	56.90	-0.5	-5.37	0.64	15.1	0.4	5.98	4	3	
21.06.2013	18.30 h	20.00 h	10.26	-0.6	-6.32	0.59	11.1	1.7	5.90	4	3	
21.06.2013	21.00 h	03.30 h	0.65	-2.6	-12.94	0.32	12.1	2.3	5.79	4	3	
07.08.2013	12.00 h	14.00 h	122.98	0.4	-3.22	0.78	59.8	0.6	6.21	4	3	
07.08.2013	14.00 h	16.10 h	68.09	0.1	-5.47	0.63	65.7	1.1	5.99	4	3	-2.07
07.08.2013	16.10 h	19.20 h	434.64	-0.2	-5.42	0.63	76.3	0.9	6.08	4	3	-2.05

07.08.2013	20.30 h	04.00 h	37.44	0.2	-6.99	0.54	60.0	0.7	6.25	4	3	-2.00
08.08.2013	06.30 h	09.30 h	7.21	0.4	-8.59	0.47	30.3	0.9	6.20	4	2	-2.40
08.08.2013	09.30 h	11.00 h	0.88	-1.1	-9.88	0.41	25.4	0.4	4.25	4	2	-2.23
08.08.2013	11.00 h	15.00 h	7.21	-0.4	-9.29	0.43	33.6	0.9	4.62	4	2	-2.09
08.08.2013	15.00 h	17.00 h	4.04	0.2	-7.50	0.52	21.0	0.3	5.40	4	2	-2.26
08.08.2013	20.00 h	04.00 h	2.61	-1.3	-11.89	0.34	7.7	0.2	5.15	4	2	-2.48
08.09.2013	02.00h	05.00 h	2.35	-0.8	-8.78	0.47	42.4	0.9	5.56	3	3	-2.40
08.09.2013	12.00 h	14.00 h	6.39	-0.1	-7.78	0.52	27.6	1.4	5.30	3	3	-2.23
08.09.2013	14.00 h	15.15 h	3.86	-0.4	-8.33	0.49	16.0	3.0	4.96	3	3	
08.09.2013	15.15 h	16.45 h	32.16	-0.5	-8.40	0.49	11.6	3.7	4.91	3	3	-2.30
08.09.2013	17.10 h	18.30 h	1.11	-1.0	-9.00	0.46	12.6	0.7	4.94	3	3	-2.36
08.09.2013	18.30 h	04.00 h	3.96	-3.2	-14.71	0.26	16.0	1.3	4.61	3	2	-2.37
12.09.2013	10.50 h	13.50 h	1.84	-7.7	-9.00	0.48	17.1	0.3	4.83	3	1	-2.17
12.09.2013	13.50 h	15.40 h	2.09	-7.5	-11.75	0.39	14.0	0.7	4.34	3	1	-2.16
12.09.2013	15.40 h	17.00 h	1.59	-7.6	-13.73	0.33	17.1	1.4	4.50	3	1	-2.14
12.09.2013	17.00 h	18.30 h	3.16	-8.0	-13.67	0.33	18.8	0.7	4.67	3	1	-2.15
12.09.2013	19.30 h	01.00 h	2.89	-9.2	-13.33	0.34	19.8	0.2	5.10	3	1	-2.13
22.05.2014	04.00h	12.00h	44.48	-3.2	-4.47	0.72	65.83	2.00	7.15	2	3	-2.13
22.05.2014	12.00 h	20.00 h	12.01	-2.8	-8.81	0.49	55.30	1.95	5.74	2	3	-2.17
22.05.2014	20.00h	04.00h	31.51	-5.1	-8.01	0.52	58.68	2.32	5.48	2	3	-2.37
28.06.2014	20.00h	04.00h	5.00	-1.1	-9.96	0.47	26.21	0.90	5.45	4	2	-2.05
29.06.2014	04.00h	10.00h	0.21	-1.8	-14.08	0.32	19.64	1.93	4.90	4	2	-2.27
29.06.2014	10.00h	16.00h	6.29	-2.8	-12.69	0.36	14.56	1.18	4.94	4	2	-2.24
29.06.2014	18.00h	04.00h	2.35	-7.4	-14.9	0.29	34.34	0.98	5.04	4	1	-2.31
29.07.2014	04.00h	10.00h	0.43	-2.0	-17.6	0.23	26.21	2.00	4.13	4	2	-2.24
29.07.2014	11.00h	15.30h	1.59	-1.6	-14.47	0.31	28.61	0.85	4.97	4	2	
30.07.2014	04.00h	12.00h	0.88	-0.4	-13.64	0.34	33.04	2.25	4.90	4	1	-2.22
30.07.2014	17.00h	01.00h	0.88	3.2	-14.99	0.30	5.37	5.47	4.51	4	1	-2.22
30.09.2014	13.00h	13.45h	0.21	-1.2	-10.34	0.41	7.64	0.59	5.07	3	3	-2.22
01.10.2014	05.00h	06.30h	1.59	-2.5	-11.17	0.38	16.99	0.73	4.70	3	3	-2.36
21.10.2014	20.00h	04.00h	60.51	-12.8	-11.46	0.39	67.95	2.00	5.35	3	1	
22.10.2014	06.00h	13.00h	29.02	-17.0	-14.72	0.29	60.40	2.00	5.23	3	1	