Dataset contains snowpack density derived from shallow snow cores. Fieldwork has been done during peak of accumulation on several glaciers in the region of Hornsund, Svalbard:

Amundsenisen (2013)

Werenskioldbreen (2013, 2015)

Nannbreen (2013)

Flatbreen (2013, 2018)

Storbreen (2013, 2018)

Results might be valuable i.a. for mass-balance estimations or GPR survey validation.

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References:

Laska M., Grabiec M., Ignatiuk D., Budzik T., 2017. Snow deposition patterns on southern Spitsbergen glaciers, Svalbard, in relation to recent meteorological conditions and local topography. Geografiska Annaler, Series A: Physical Geography, 99(3): 262–287

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Data available on request

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Data sample:

Glacier	Site	Elevation (m a.s.l.)	Snow depth (m)	Bulk density (kg m ⁻³)	SWE (m)	IF (%)	MFcr (%)	MLT (cm)
Amundsenisen	A1	690	3.45	470	1.62 ± 0.17	2.3	12.8	14.7
Flatbreen	F1	203	1.15	480	0.55 ± 0.06	-	-	_
	F2	289	1.90	420	0.80 ± 0.10	_	_	_
	F3	383	1.94	430	0.83 ± 0.10	-	-	_
Hansbreen	H4	189	1.20	420	0.50 ± 0.06	7.9	19.2	6.7
	H6	290	1.72	440	0.76 ± 0.09	5.2	23.8	8.6
	H9	429	3.15	410	1.30 ± 0.16	2.5	27.6	12.1
Nannbreen	N1	295	0.88	460	0.41 ± 0.04	_	_	_
	N2	375	1.59	450	0.72 ± 0.08	_	_	_
	N3	454	2.77	410	1.14 ± 0.14	0.4	7.7	16.2
Storbreen	S1	170	0.99	420	0.42 ± 0.05	_	_	_
	S2	268	1.37	340	0.47 ± 0.07	_	_	_
	S3	427	1.72	390	0.67 ± 0.09	_	_	_
Werenskioldbreen	W7	195	0.84	420	0.37 ± 0.05	2.2	22.5	9.9
	W5	304	1.12	430	0.48 ± 0.06	-	-	_
	W1	515	1.83	460	0.84 ± 0.09	1.7	20.3	8.6

Note: SWE, snow water equivalent; IF, percentage of ice formations in total snow depth; MFcr, percentage of melt-freeze crusts in total snow depth; MLT, mean layer thickness.