Supplement of The Cryosphere, 14, 3935–3958, 2020 https://doi.org/10.5194/tc-14-3935-2020-supplement © Author(s) 2020. This work is distributed under the Creative Commons Attribution 4.0 License.





## Supplement of

## **GrSMBMIP:** intercomparison of the modelled 1980–2012 surface mass balance over the Greenland Ice Sheet

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## Supplementary of GrSMBMIP (Fettweis et al., 2019)

	PROMICE - GrIS + ice caps (#1683; -0.84±0.61mWE)		
	Bias	RMSE	Correlation
BESSI (EBM)	0.38	0.87	0.79
BOX13 (RCM)	0.24	0.86	0.77
CESM (GCM)	0.11	0.66	0.86
dEBM (EBM)	-0.06	0.64	0.87
HIRHAM (RCM)	0.13	0.58	0.90
IMAU-ITM (EBM)	-0.02	0.60	0.88
MAR (RCM)	0.10	0.49	0.93
MPI-ESM (GCM)	-0.06	0.76	0.81
NHM-SMAP (RCM)	0.40	0.77	0.89
PDD1km			
PDD5km			
RACMO (RCM)	-0.07	0.62	0.89
SNOWMODEL (EBM)	-0.30	0.67	0.89
ENSEMBLE			

Table S1. Same as Table 3 but by considering all the measurements, from the PROMICE data base, which are on the main ice sheet or on the peripheral ice caps.

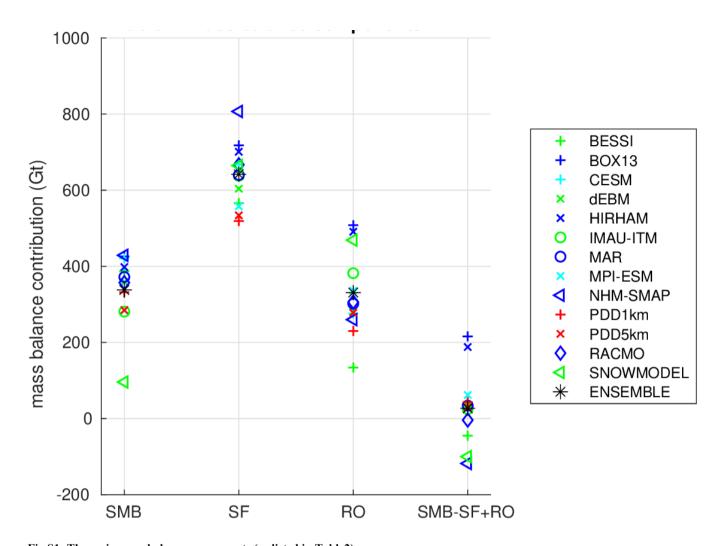


Fig S1: The main mass balance components (as listed in Table2).

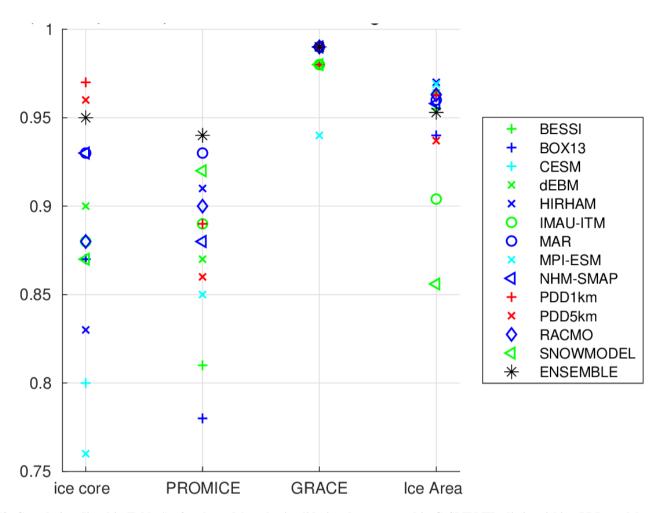


Fig S2: Correlation (listed in Table 1) of each model vs the 4 validation data sets used in GrSMBMIP, distinguishing PDD models (red), EBMs (green), GCMs (cyan) and RCMs (blue)

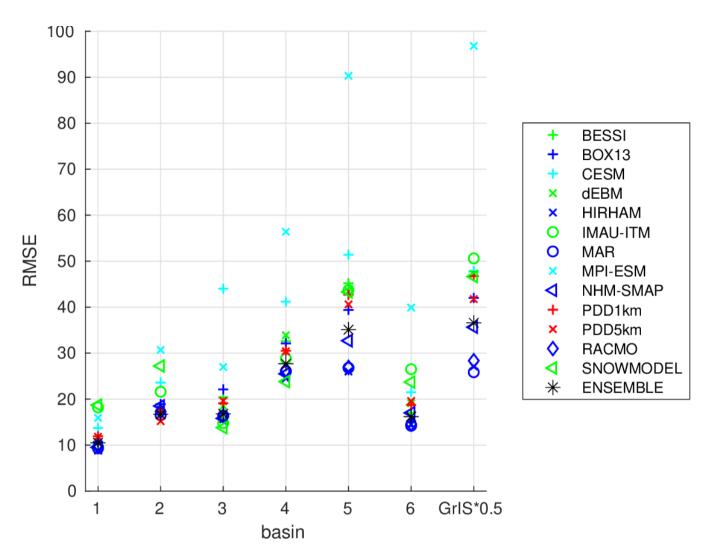


Fig S3: RMSE (listed in Table 2) of each model vs the GRACE based time series.