

(a) Typical scenarios for uncertainty estimation

Scenario	Ice type	\bar{h}_i (m)	\bar{h}_s (m)
I	FYI	1.307	0.127
II	FYI	2.549	0.171
III	MYI	3.009	0.265
IV	MYI	4.736	0.348

(b) Results

Scenario	Relative uncertainty	Perturbations			
		TB	FB _s	<i>s</i>	All
I	σ_{h_i}/h_i	9.44 %	15.75 %	8.19 %	15.30 %
	σ_{h_s}/h_s	14.38 %	25.08 %	13.06 %	24.21 %
II	σ_{h_i}/h_i	4.90 %	4.36 %	3.42 %	5.60 %
	σ_{h_s}/h_s	11.33 %	9.99 %	7.89 %	12.93 %
III	σ_{h_i}/h_i	11.15 %	12.23 %	5.02 %	10.24 %
	σ_{h_s}/h_s	19.49 %	21.41 %	8.83 %	17.88 %
IV	σ_{h_i}/h_i	6.62 %	5.19 %	4.71 %	6.37 %
	σ_{h_s}/h_s	13.92 %	10.94 %	9.92 %	13.28 %