Not.	Name	Value	Unit	Source
Ice rheology				
ρ	Ice density	910	$\mathrm{kg\,m^{-3}}$	Aschwanden et al. (2012)
g	Standard acceleration due to gravity	9.81	$\mathrm{m\,s^{-2}}$	Aschwanden et al. (2012)
n	Glen exponent	3	–	Cuffey and Paterson (2010, p. 55–57)
A_c	Ice hardness coefficient cold	2.847×10^{-13}	$\mathrm{Pa^{-3}\,s^{-1}}$	Cuffey and Paterson (2010, p. 72)
A_w	Ice hardness coefficient warm	2.356×10^{-2}	$\mathrm{Pa^{-3}\,s^{-1}}$	Cuffey and Paterson (2010, p. 72)
Q_c	Flow law activation energy cold	6.0×10^{4}	$\mathrm{J\,mol^{-1}}$	Cuffey and Paterson (2010, p. 72)
Q_w	Flow law activation energy warm	11.5×10^{4}	$\mathrm{J\,mol^{-1}}$	Cuffey and Paterson (2010, p. 72)
E_SIA	SIA enhancement factor	2	–	Cuffey and Paterson (2010, p. 77)
E_SSA	SSA enhancement factor	1	–	Cuffey and Paterson (2010, p. 77)
T_c	Flow law critical temperature	263.15	K	Paterson and Budd (1982)
f	Flow law water fraction coeff.	181.25	–	Lliboutry and Duval (1985)
R	Ideal gas constant	8.31441	$\mathrm{J\,mol^{-1}\,K^{-1}}$	Cuffey and Paterson (2010, p. 72)
β	Clapeyron constant	7.9×10^{-8}	$\mathrm{K\,Pa^{-1}}$	Lüthi et al. (2002)
c_i	Ice specific heat capacity	2009	$\mathrm{J\,kg^{-1}\,K^{-1}}$	Aschwanden et al. (2012)
c_w	Water specific heat capacity	4170	$\mathrm{J\,kg^{-1}\,K^{-1}}$	Aschwanden et al. (2012)
k	Ice thermal conductivity	2.10	$\mathrm{J\,m^{-1}\,K^{-1}\,s^{-1}}$	Aschwanden et al. (2012)
L	Water latent heat of fusion	3.34×10^{5}	$\mathrm{J\,kg^{-1}\,K^{-1}}$	Aschwanden et al. (2012)
Basal sliding				
q	Pseudo-plastic sliding exponent	0.25	–	Aschwanden et al. (2013)
v_th	Pseudo-plastic threshold velocity	100	$\mathrm{m\,a^{-1}}$	Aschwanden et al. (2013)
c_0	Till cohesion	0	Pa	Tulaczyk et al. (2000)
e_0	Till reference void ratio	0.69	–	Tulaczyk et al. (2000)
C_c	Till compressibility coefficient	0.12	–	Tulaczyk et al. (2000)
δ	Minimum effective pressure ratio	0.02	–	Bueler and van Pelt (2015)
ϕ	Till friction angle	30	°	Cuffey and Paterson (2010, p. 268)
W_max	Maximum till water thickness	2	m	Bueler and van Pelt (2015)
Bedrock and lithosphere				
ρ_b	Bedrock density	3300	$\mathrm{kg\,m^{-3}}$	–
c_b	Bedrock specific heat capacity	1000	$\mathrm{J\,kg^{-1}\,K^{-1}}$	–
k_b	Bedrock thermal conductivity	3	$\mathrm{J\,m^{-1}\,K^{-1}\,s^{-1}}$	–
ν_m	Asthenosphere viscosity	2.2×10^{20}	Pa s	Mey et al. (2016)
ρ_m	Asthenosphere density	3300	$\mathrm{kg\,m^{-3}}$	Mey et al. (2016)
D	Lithosphere flexural rigidity	1.389×10^{24}	N m	Mey et al. (2016)
Surface and atmosphere				
T_s	Temperature of snow precipitation	273.15	K	–
T_r	Temperature of rain precipitation	275.15	K	–
F_s	Degree-day factor for snow	3.297×10^{-3}	$\mathrm{m\,K^{-1}\,day^{-1}}$	Huybrechts (1998)
F_i	Degree-day factor for ice	8.791×10^{-3}	$\mathrm{m\,K^{-1}\,day^{-1}}$	Huybrechts (1998)
R	Refreezing fraction	0.0	–	–
γ	Air temperature lapse rate	6×10^{-3}	K m − 1	Rolland (2003)
ψ	Precipitation factor	0.0704	–	Huybrechts (2002)