

Symbol	Units	Description
b	m	Subglacial gap height (average over element)
b_e	m	Englacial storage volume per unit area of bed, $b_e = e_v(h - z_b)$
t	s	Time
\mathbf{q}	$\text{m}^2 \text{s}^{-1}$	Gap-integrated basal water flux, $\mathbf{q} = \frac{-b^3 g}{12\nu(1+\omega Re)} \nabla h$
\dot{m}	$\text{kg m}^{-2} \text{s}^{-1}$	Internal melt rate
p_i	Pa	Ice overburden pressure, $p_i = \rho_i g H$
p_w	Pa	Subglacial water pressure, $p_w = \rho_w g(h - z_b)$
Re	Dimensionless	Reynolds number, $Re = \mathbf{q} /\nu$
h	m	Hydraulic head
β	Dimensionless	Parameter to control opening due to sliding over bedrock bumps, $\beta = (b_r - b)/l_r$ for $b < b_r$, $\beta = 0$ for $b \geq b_r$
N	Pa	Effective pressure, $N = p_i - p_w$