

Experiments

This file lists the different experiments made using the $\mu(I) - \Phi(I)$ rheology in the McGill SIM model.

04

Why

This was made to test whether the $\mu(I)$ coefficient is correctly computed.

What I learned

For the small test that I'm doing, the computations seem not to be stable for a long time but I'm able to still compute some stuff. This was made with the following parameters

- $d_{\text{average}} = 10$! Average floe size
- $\mu_0 = 2.6 \times 10^{-1}$! Static friction coefficient
- $\mu_{\infty} = 4.93$! free parameter depends on material properties
- $c_{\phi} = 5.3 \times 10^{-1}$! free parameter depends on material properties
- $I_0 = 2.5 \times 10^{-1}$! free parameter depends on material properties

05

Why

This was made to test whether the $\mu(I)$ coefficient is correctly computed.

What I learned

For the small test that I'm doing, the computations seem not to be stable for a long time but I'm able to still compute some stuff. This was made with the following parameters (which are almost the same as 04 but I_0 has changed)

- $d_{\text{average}} = 10$! Average floe size
- $\mu_0 = 2.6 \times 10^{-1}$! Static friction coefficient
- $\mu_{\infty} = 4.93$! free parameter depends on material properties
- $c_{\phi} = 5.3 \times 10^{-1}$! free parameter depends on material properties
- $I_0 = 6.8 \times 10^{-3}$! free parameter depends on material properties