

# BOG4

Model development path/community  
engagement

Wednesday, Feb 3

# What is the meaning of a community model for NGGPS

- Uncertain what the requirements are for NGGPS regarding a community model
- How much of NGGPS would be public/supported and available to broader science community
- Thought that availability of “case studies” through NGGPS would allow community to more easily assess new developments within system

# Data assimilation

- Whether it will be released as part of NNGGSP (or is it the “secret sauce”)
- Documentation of assimilation method
- Sparseness of data for assimilation and verification
- Difficulty of just assimilating ice concentration
  - how do you deal with other variables (thickness distribution, snow)
  - Importance of better understanding some of these choices on forecast skill

# Priorities for model development

- High resolution –
  - Rheology
  - Isostasy
  - coupled issue
- Ice type (pancake, grease, etc)
- Snow on sea ice
- MIZ/ice edge processes in general
- Most sea ice models have been developed for climate applications and there is a need for more studies on importance of aspects for forecasting
- Need for an extensible model within NCGPS to accommodate future developments (modularity of dynamics/thermo, etc.)

# (Perceived) dominance of CICE(5)

- Does there need to be more variety in models
- Thought that the sensitivity to difference ice models is likely swamped by uncertainty in forcing (eg atmosphere)
- Active developer community for CICE seen as an important advantage (and different from other possible sea ice models)
- Possibility of a “consortium” to adopt CICE5
  - Make a true community model; but would need stable funding – something we weren’t able to assess
- Discussion that a “bake-off” among sea ice models is flawed and that given same forcing models would perform similarly