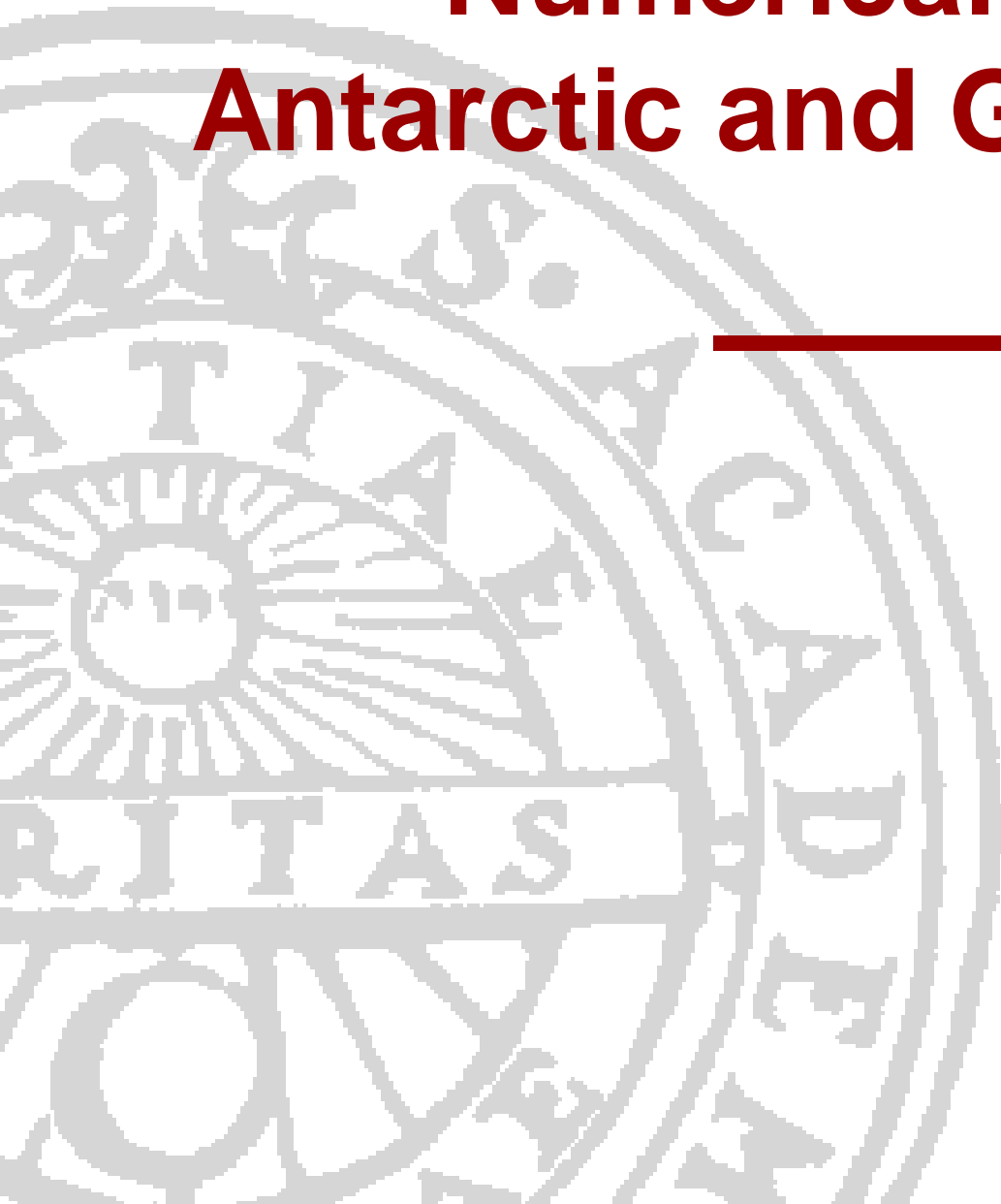


Numerical modelling of Antarctic and Greenland ice sheets

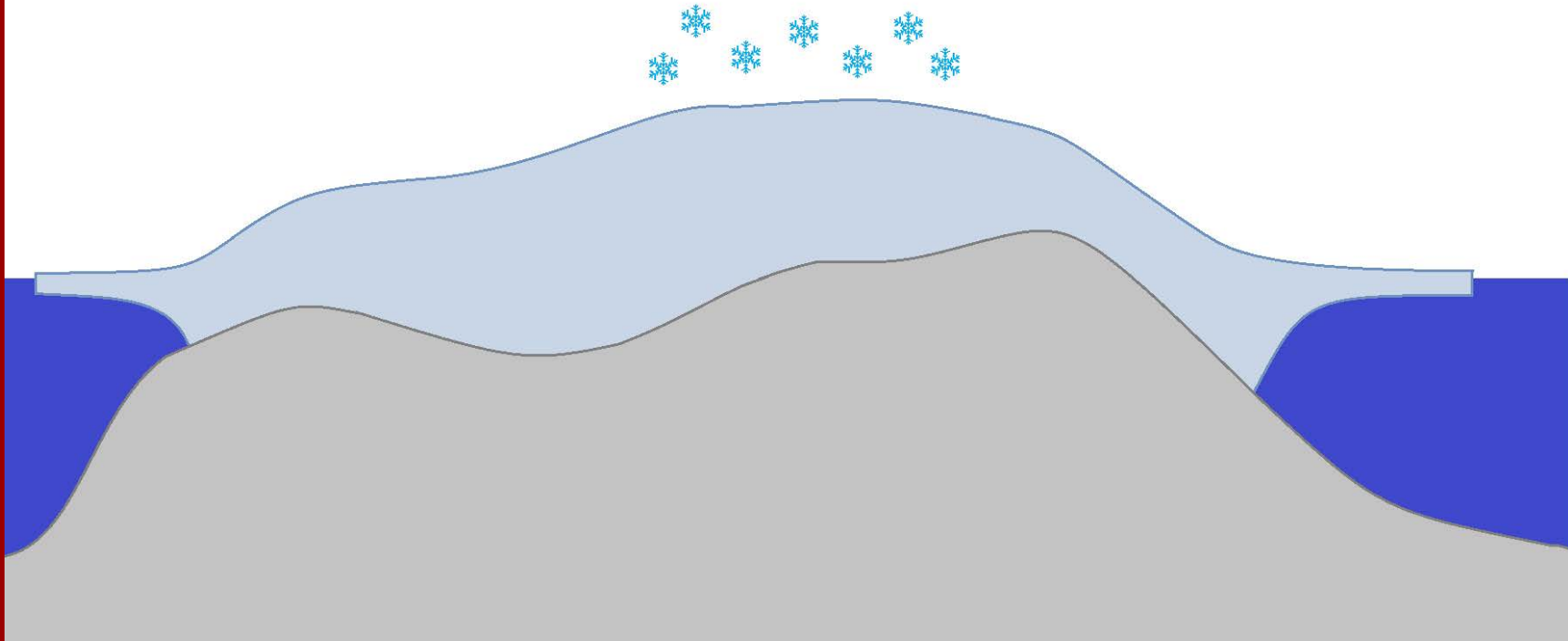
Cecilia Håård





UPPSALA
UNIVERSITET

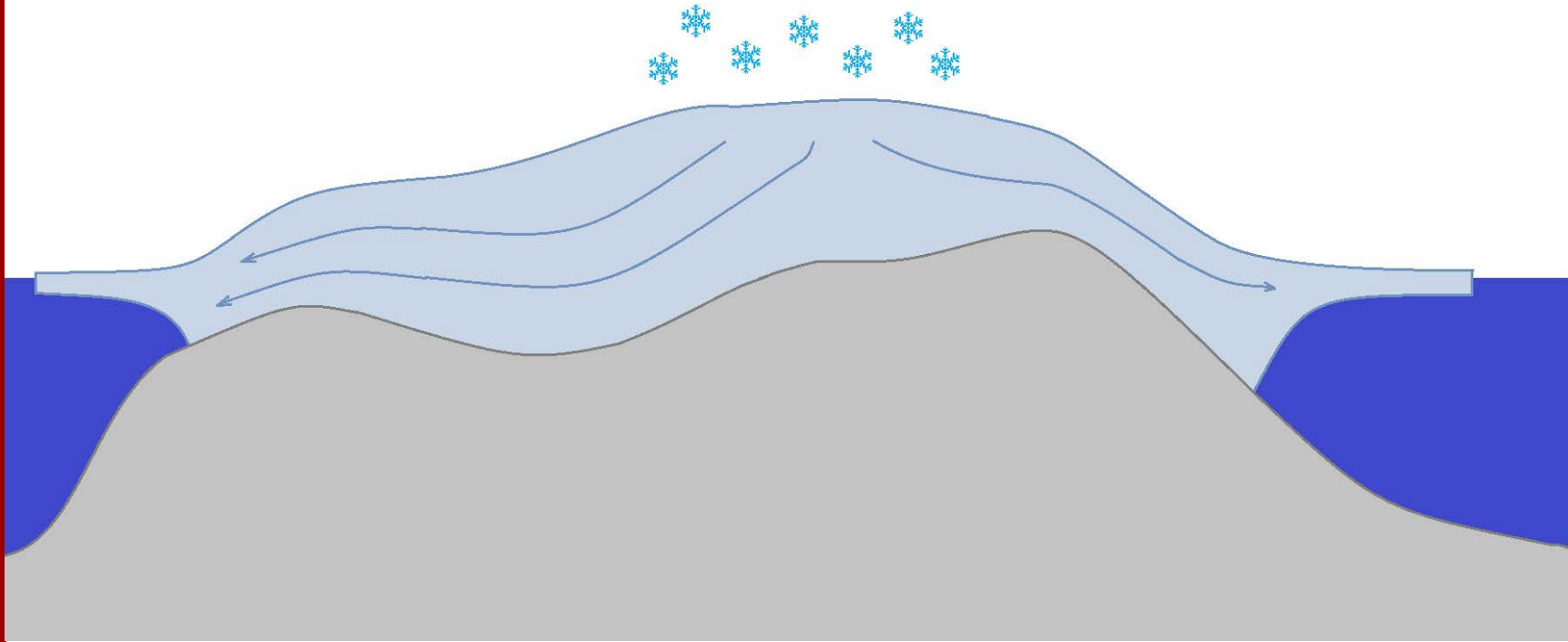
Not just a piece of ice





UPPSALA
UNIVERSITET

Not just a piece of ice





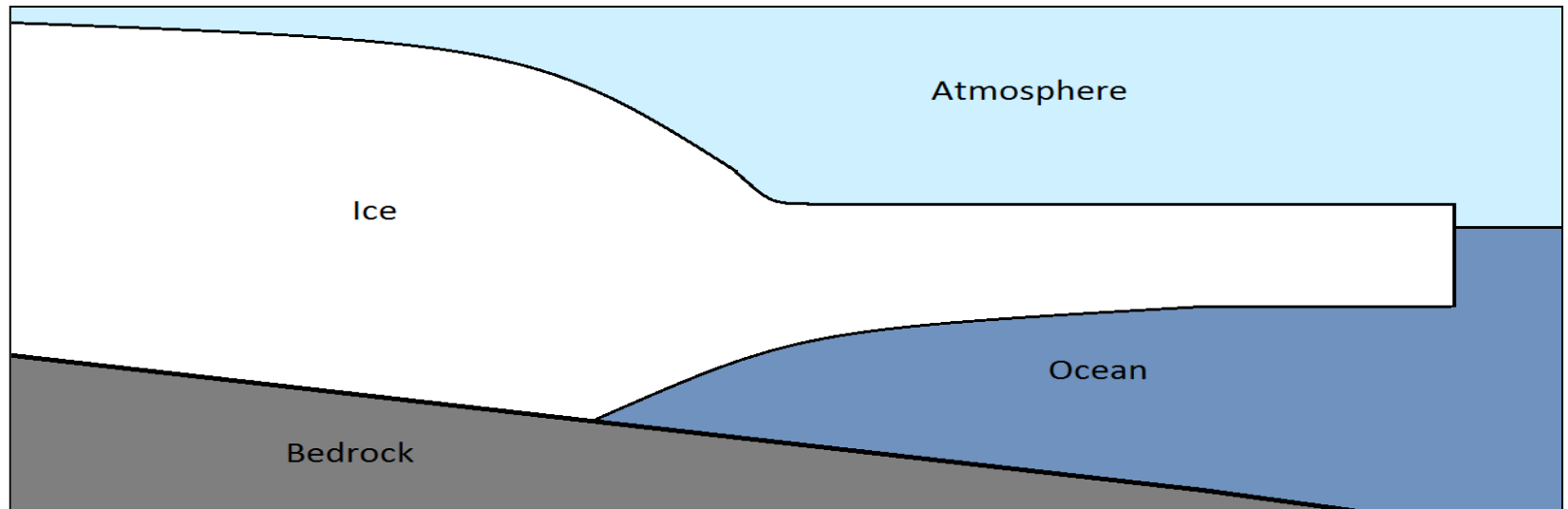
Ice flow model: Stokes Equations

- Incompressible fluid
- No turbulence
- Glen's flow law (stress-strain)
- Finite Element Method
- Elmer/Ice



My focus: the grounding line

- Where the grounded ice sheet becomes afloat:





My focus: the grounding line

- Important for upstream ice flow dynamics
- Hard to model without high resolution!
- High resolution grid or adaptive grid becomes too computationally expensive
- Aim: development of a sub-grid model



UPPSALA
UNIVERSITET

Informationsteknologi

Thank you!

