University of Stuttgart
Germany

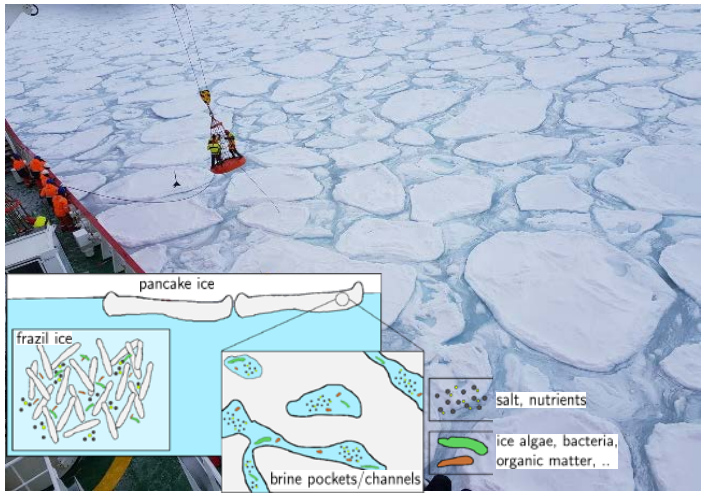
Institute of Mechanics, Structural Analysis
and Dynamics of Aerospace Structures

Prof. Dr.-Ing. Tim Ricken

Numerical simulations of Antarctic pancake sea ice formation

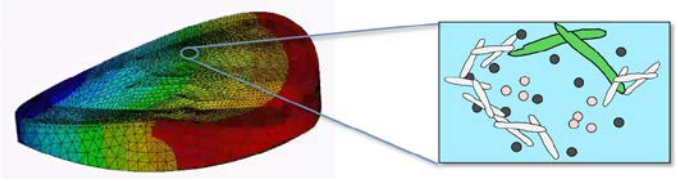
Motivation

- Numerical simulations of the formation of Antarctic sea ice, so-called pancakes
- Based on continuum-mechanical multi-phase framework (eTPM)
- Implementing physical- and biogeochemical (P-BGC) processes
- Coupling to transport mechanisms



Possible topics (Bachelor's or Master's thesis)

- Parameter studies
- Verification/Validation of simulation results
- Implementation of coupled micro-scale for ice formation
- Enhancement of the model



Helpful background knowledge:

- Continuum mechanics
- FEM (introduction to FEM, numerics)
- Programming experience (Fortran)

Editor:
Prof. Tim Ricken

Supervisor:
Dipl.-Ing. Andrea Thom

Please don't hesitate to contact us for further information.

Contact: Pfaffenwaldring 27, 70569 Stuttgart
Office: 00.050
Tel.: 0711 685-69532
E-Mail: andrea.thom@isd.uni-stuttgart.de