

Exploratory Workshop RheoMan-Augury-iGEO-ATUNE

Utrecht University, Heidelberglaan 2, Van Unnik building 8th floor, 29-30 Nov 2017

29 Nov 9h00-12h30:

Introduction to RheoMan (Patrick Cordier, 5')

Modeling defects:

- dislocations (Pierre Hirel, 30')
 - grain boundaries (Xiao-Yu Sun, 10')
- Modeling mobility of defects (Alexandra Goryaeva, 20')

Discussion

Flow laws:

- from defects to flow laws with Orowan (Philippe Carrez, 15')
- Weertman creep (Riccardo Reali, 15')
- Power law vs exponential law (Karine Gouriet, 15')
- Pure climb creep in the lower mantle (Phillippe Carrez, 15')

Discussion

29 Nov 12h30 - 14h00:

Lunch in the Basket (on Campus)

29 Nov 14h00 - 17h30:

AUGURY from A to Y (Nicolas Coltice 45-60')

Where does subduction initiate and die? Insights from convection models with continental drift (Martina Ulvrova 30')

Discussion

Overview of ATUNE (to start in the near future) (Arwen Deuss 30')

The importance of anelasticity for identifying melt in the upper mantle (Laura Cobden 15')

29 Nov 19h00 -

Dinner in Selamat Makan (good Indonesian restaurant in town, Voorstraat 100, 3512 AV Utrecht)

30 Nov 9h00 - 12h30:

Introduction to iGEO (Jeannot Trampert 5')

Modelling capabilities (current and planned) of StagYY (Paul Tackley 30')

Inferring the nature of mantle convection from present day observations (Suzanne Atkins 30')

Discussion

The importance of grain-size evolution in mantle convection models (Antoine Rozel 15')

Treating continents and continental growth in mantle convection models (Charitra Jain 15')

Implementing a realistic melting (igneous petrology) model for mantle convection models (Ilya Fomin 15')

The influence of water and water circulation in mantle convection (Stefan Brändli (Augury project) 15')

Discussion

30 Nov 12h30 - 14h00:

Lunch in the Basket (on Campus)

30 Nov 14h00 - 15h00:

Discussion on prospects for future collaboration