

Dataset for Crustal Rheology and Kinematic Evolution in Continental Subduction Zones

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Contents of files

1. List of data files

Models2a3_output.zip
Modelv1a1_output.zip
Models1a2_output.zip
Initial_temperature.txt
Initial_compositional_field.txt

2. List of script files

converData.py
plot.sh

Introduction

1. Data packs for numerical experiments

(1) *.zip: Data in VTK format for visualization, such as compositional fields, velocity, geothermal structure, strain rate.

(2) Initial_temperature.txt & Initial_compositional_field.txt: Initial temperature structure and compositional field data files that were generated by Matlab-code (Written by Mengxue Liu) as imported data in ASPECT.

2. Scripts to visualize effective viscosity field

"converData.py": Convert data in VTK to a GMT readable data format

"plot.sh": Plot "effective viscosity field" with GMT.

3. Visualization

Visualization for the composition field: Open and deal with Paraview.

Visualization for the viscosity field:

(1) convert data with python code: converData.py

(2) plot with the converted data via script file: plot.sh