

## Working Groups of Sub-Commission 2.6

### WG 2.6.1: Potential Field modeling with Petrophysical support

Chair: Carla Braitenberg (Italy)

#### Terms of Reference

The WG is concentrated on developing and promoting methods and software that are needed for a full understanding of the Earth static and variable gravity and gradient field. Due to the similarity in the gravity and magnetic potential field equations and the recent SWARM mission, the magnetic field modeling is also considered. At the present stage of knowledge it is recognized that a petrologic modeling of density should be considered in order to reduce ambiguity of the density models of crust and mantle. The group will seek petrological support to assist in developing a geophysically oriented petrological software for density, magnetic susceptibility and seismic velocity modeling. The output should be usable for further modeling as input for 3D lithosphere and mantle modeling. The working group intends to validate potential field modeling software that is free-share. Herefore a series of benchmark models will be collected.

The WG promotes studies and research of potential field terrestrial and satellite data for crust and mantle modeling.

#### Objectives:

- Validation of potential field modelling software
- Promote development of geophysical oriented petrological software for density, magnetic susceptibility, seismic velocity modeling. Output should be usable for further modeling as input for 3D lithosphere and mantle modeling.
- Define benchmark models for validation of software
- Organization of scientific workshops and meetings for the discussion of up to date modeling methods of potential fields and their time variations

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