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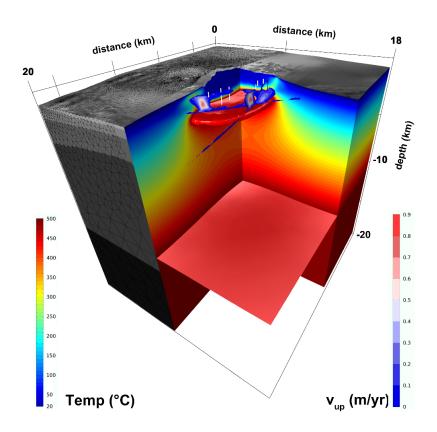
Seminario

Thursday, 24 November 2022 – 16:30, Aula Arduino

Geothermal energy for energy transition: numerical modelling of hydrothermal systems and deep heat exchangers

Speaker: Dr. GOLA Gianluca

CNR - Institute of Geosciences and Earth Resources, Pisa (Italy)



Abstract

Geothermal energy, defined as the thermal energy stored in the Earth, is considered a critical renewable energy source for the future, capable of contributing to environmentally friendly carbon-neutral energy conversion. To evaluate the underground geothermal potential, the knowledge of the temperature distribution with depth is a key aspect. In this context, numerical simulations of heat and fluid transport in porous rocks can predict the amount of thermal energy stored in the Earth as well as to evaluate the power production. This seminar focuses on the implementation and calibration of thermal numerical models adopting a multidisciplinary approach. Several case studies worldwide are presented and discussed.

Proposer: Dr. Eloisa Di Sipio