

SEMINÁRIO APMG & CREATE

Spatial data science for geophysical modelling

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Geophysical modelling allows predicting the spatial distribution of subsurface properties from geophysical data measured at the Earth's surface. However, this is a rather challenging task due to the band-limited and noise nature of the data. Spatial data science algorithms have some advantages that make them suitable to tackle these challenges. This presentation illustrates several examples of spatial data science algorithms for geophysical modelling (i.e., inversion) and their ability to predict plausible subsurface models while assimilating multiple data sets.



Leonardo Azevedo holds a degree in Geological Engineering in (2007) and MSc. on Marine Geology and Geophysics (2009) both from U. Aveiro. Leonardo concluded his Ph.D. in 2013 with the development of novel geostatistical methodologies for geophysical data integration into subsurface Earth models (Técnico, U. Lisboa). Habilitation in Georesources (2021). Currently his main research interests are related to the development of spatial data science methods to model natural phenomena, geostatistical geophysical inversion and uncertainty assessment in natural systems. Leonardo was awarded with the EAGE's Arie van Weelden Award and SEG's J. Clarence Karchersu Award in 2022.

Organização: Miguel Potes, Célia Gouveia, Isilda Menezes, Mário Pereira e Rui Oliveira.

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