

## NUMERICAL MODELLING FOR GEOSCIENCE APPLICATIONS

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The study of geological evolution and subsurface transport is a critical issue for several important applications, from oil recovery to CO<sub>2</sub> sequestration, identification of nuclear waste sites and soil remediation.

It is also a challenge for numerical simulations. The problems involved are of multiphysic nature and often lead to large scale problems. Another important aspect is the uncertainty of soil properties and of boundary data.

In this talk we will present some recent results concerning the simulation of geological evolution and flow in fractured porous media, focusing on the open mathematical issues and numerical challenges.