

INVITATION TO THE LECTURE

MAY 19, 2022

9:00

CONFERENCE ROOM

MODELLING PROCESSES IN POROUS MEDIA IV: From saturated thermoporoelasticity to unsaturated one

Tomáš Ligurský

Institute of Geonics of the Czech Academy of Sciences, Ostrava

Fundamentals of unsaturated thermoporoelasticity will be presented in this talk. To start with, the balance equations and the entropy condition will be formulated for an unsaturated porous medium. Then the Lagrangian constitutive equations complying the entropy condition will be derived. Alternative constitutive equations for an Eulerian formulation will be also proposed. Finally, a possible simplification of the equations treating a complete two-phase flow will be introduced.