

INVITATION TO THE LECTURE

OCTOBER 12, 2022

10:00

CONFERENCE ROOM

A POROELASTOPLASTIC MODEL FOR SATURATED CLAYS INCORPORATING THE MODIFIED CAM-CLAY MODEL

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This lecture will be devoted to a poroelastoplastic model widely used for saturated clays. First, a Lagrangian formulation of basic balance laws under the small-strain assumption will be recalled in short. Then constitutive relationships will be presented. Especially the modified Cam-Clay model with a non-linear poroelasticity will be described in detail. Finally a general thermodynamical framework for poroelastoplasticity will be introduced and the modified Cam-Clay model will be fitted to it. This will show the thermodynamical consistency of the model, which is an indispensable property of reliable mathematical models.