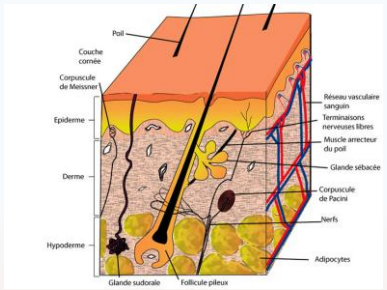
# Finite Element Analysis of Porous Media

Claudio Gavagnin

Concrete

Soils



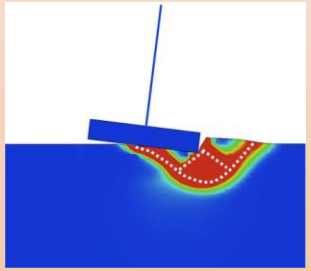

Biological tissues

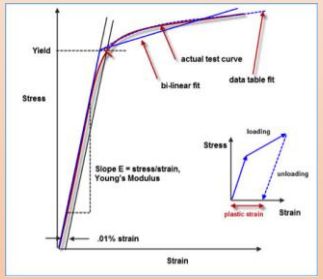
Ceramics

## What do they have in common?

All of those material structures can be modeled as POROUS MEDIA, solid granular structures with voids filled by one or more fluids

FEM analysis allows us to capture some particular non-linear behaviours (material, geometry) of porous media






In soil mechanics, for example, those analyses invest a key role for investigatin of some cathastofic events, such as landslide formation