

# **A Unified Critical State Model (CASM) For Geomaterials With Application to Tunnelling**

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**Abstract:**

This Lecture will present a unified critical state model (CASM) for soils and its application in geotechnical engineering. A particular focus will be placed on describing the rationale and advantages of the CASM model and its application in cavity expansion problems in soils. It is demonstrated that cavity expansion solutions using the CASM model can be used successfully to assess stability and predict deformation in tunnelling.