PhD DISG

Director
Patrizia Trovalusci

Sapienza Università di Roma
PhD Program in
Structural and Geotechnical Engineering

May 5, 6 and 7, 2025 – 3:00pm-6:00pm

Prof. Yannis F. Dafalias

Professor, Department of Civil and Environmental Engineering of the University of California at Davis

Topics in Soil Plasticity Constitutive Modeling and Applications

The focus of the course is the development of advanced plasticity constitutive models for soils within the framework of Critical State Theory, and applications to geotechnical engineering problems with emphasis on coarse-grained soils under cyclic loading. The concept of Bounding Surface plasticity as applied to soils will constitute the main theoretical tool, while the role of fabric will be presented in conjunction with the newly developed Anisotropic Critical State Theory. A critical review of rate dependent plasticity in soil mechanics will be presented, and a new constitutive model for sands that is rate dependent but time independent will be developed.

Program:
https://phd.uniroma1.it/web/course---topics-in-soil-plasticity-constitutive-modeling-and-applications_ns22606EN_EN.aspx

Registration form:
https://forms.gle/yCajQR4U13eJdR7M6

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