PhD DISG

Director
Patrizia Trovalusci

Sapienza Università di Roma
PhD Program in
Structural and Geotechnical Engineering

March 24, 26, 28, 2025 – 9:30am-12:30pm

Prof. Matthew DeJong

Full Professor, Ray & Shirley Clough Presidential Chair in Structural Engineering, University of California, Berkeley, CA, USA

Analytical and Computational Modeling of the Seismic Response of Masonry Structures

This short course will focus on understanding and simulating the dynamic response of masonry structures subjected to earthquake loading. The course will start with the fundamental dynamics governing the rocking and overturning of structures, and how the response of rocking structures differs from typical elastic structures. Subsequently, the course will focus on simulating the response of rocking structures using analytical dynamics and computational modeling, and in particular discrete element modeling (DEM). Numerous examples and case studies will be presented. Finally, application of these concepts to more complex scenarios will be considered, for example: in-plane and out-of-plane interaction during seismic response, and elastic amplification inducing rocking motion.

Program:
https://phd.uniroma1.it/web/course---analytical-and-computational-modeling-of-the-seismic-response-of-masonry-structures_nS12053EN_EN.aspx

Registration form:
https://forms.gle/WQCHtf5oLrGmRWbv9

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