

## **SEMINAR ANNOUNCEMENT**

Beltrami Room, Building 5, ground floor, Leonardo Campus

Department of Civil and Environmental Engineering

April 27<sup>th</sup> 2017, from 14:00 to 15:00

Non-linear Interaction between near and far seismic wave-fields, including soil and structure. Some results of the SINAPS@ French project

## **Dr. Fernando Lopez Caballero**

PhD Assistant Professor Laboratoire MSS-Mat. - CentraleSupélec

## **Abstract**

After the disastrous earthquake-induced accidents at the Japanese nuclear power plants of Kashiwazaki-Kariwa (2007) and Fukushima (2011), the SINAPS@ research project was launched in France to explore uncertainties and quantify margins to ensure and maintain the safety of nuclear facilities against earthquakes.

After an overview of the main objectives of SINAPS@, the presentation will focus on one of the main work packages of the project, with the aim of investigating the earthquake effects related to wave propagation from the source to the structure and the equipment, involving the non-linear response of soils, the role of material heterogeneities, and the non-linear dynamic interaction of soils and structures.

Reference: Prof. Roberto Paolucci (roberto.paolucci@polimi.it)

## **Bio-sketch**

Dr. Fernando Lopez Caballero is PhD Assistant professor (Maître de Conférence/LRU) and Programme Manager MSc Geotechnical Engineering at the Université Paris-Saclay, Laboratoire MSS-Mat. – CentraleSupélec.

Dr. Fernando Lopez Caballero holds both a MSc in Soil Mechanics (D.E.A.) from the École Centrale Paris (1999) and a MSc in Civil Engineering from the Universidad de los Andes (1996).

In 2003 he was awarded his PhD in Geotechnical Engineering from the École Centrale Paris. From 2001 to 2003 he was Research Engineer at the Laboratoire de Mécanique des Sols, Structures et Matériaux CNRS-UMR 8579 -- École Centrale Paris.

