



C E M I

Centre for Excellence
in Mining Innovation

LECTURE SERIES

May 8th, 2013 at 4:00 PM & May 9th at 10:00 AM
Willet Green Miller Centre
Auditorium (Main Floor)

www.miningexcellence.ca/events/lectures/



DEM MODELS OF BOUNDARY VALUE PROBLEMS IN GEOTECHNICAL ENGINEERING

May 8th - 4:00PM - 5:00PM with Dr. Marcos Arroyo

Dr. Arroyo's research interests include laboratory seismic, the use and interpretation of in situ tests, the mechanics of cemented soils, the design and simulation of excavations and tunnels and the geotechnical properties of tire derived aggregates. He has authored and/or co-authored more than 80 papers in journals and at scientific conferences.

CONFINED FRACTURE OF QUASI-BRITTLE MATERIALS: NUMERICAL MODELING VIA INTERFACE ELEMENTS, AND EXPERIMENTAL VALIDATION

May 9th - 10:00AM - 11:00AM with Dr. Ignacio Carol

Dr. Carol's main interests are concrete, geomaterials (rock) and numerical methods for the modeling of mechanical and environmental degradation phenomena, including fracture under confinement, micromechanics, and coupled formulations. Numerical (FE) tools used in these studies were all developed within the research group under his supervision. A line of experimental research is also oriented towards validation of constitutive concepts and numerical models. The research has been supported by a number of public and private agencies, including selected industry, with a scientific production of over 250 papers, one fourth of them in major indexed journals.

RSVP with Krystle Vendette

kvendette@miningexcellence.ca or 705 673 6568 x0

Recorded video of CEMI's lecture series is provided for people unable to attend in person and for those in more remote areas, in Northern Ontario and beyond. Video coverage of these lectures is available online at www.miningexcellence.ca/events/lectures/



Dr. Marcos Arroyo

Associate Professor
Technical University of
Catalunya

Dr. Marcos Arroyo is a Civil Engineer (Ingeniero de Caminos, Madrid, 1991). He specialized in geotechnics and got his PhD in 2001 at Bristol University (UK). He has worked as a researcher at Politecnico di Milano (Italy), University College London (UK), and since 2005 at the Department of Geotechnical Engineering and Geosciences at the Technical University of Catalunya (UPC), in Barcelona (Spain), where he is now Associate Professor.

Marcos Arroyo has ample experience as a design engineer, having worked for 8 years at various engineering firms in Spain. Currently, he acts regularly as a geotechnical consultant to various public and private companies.



Dr. Ignacio Carol

Professor
Technical University of
Catalunya

Dr. Ignacio Carol obtained his Civil Engineering degree in 1980, and his Doctoral degree in 1985, both from UPC. In 1987 he received his tenure as Associate Professor at the Department of Construction Engineering of ETSECCPB (School of Civil Engineering at Barcelona).

He was promoted to Full Professor in 2002, in the Department of Geotechnical Engineering and Geo-Sciences UPC. In 1989 and 1992 he spent sabbatical years at Northwestern University (Prof. Z.P. Bazant), and University of Colorado-Boulder (Prof. K. Willam). After that, he has been visiting University of Colorado regularly collaborating with several faculty members.