Università degli Studi di Napoli Federico II

Scuola Politecnica e delle Scienze di Base

Dipartimento di Strutture per l'Ingegneria e l'Architettura (DiSt)

Nell'ambito delle attività del **Corso di Dottorato** in
Ingegneria Strutturale Geotecnica e Rischio Sismico

Venerdì 21 giugno 2019, ore 11:00-13:00

Prof. Katsuishiro Goda

(Western University, Canada)

terrà un seminario dal titolo

Earthquake Catastrophe Modelling & Disaster Risk Financing

Large earthquake and tsunami are major threats to urban cities globally. Nowadays, a single catastrophic event could cause an economic loss exceeding a trillion dollars. The catastrophic nature of earthquake-tsunami disasters is attributed to simultaneous impact to numerous people and buildings/infrastructures over a wide geographical region, generating spatiotemporally concentrated damage and loss. A surge of earthquake-tsunami loss may overwhelm the risk-bearing capacities of households, companies, municipalities, insurers, and even reinsurers, leading to serious long-term effects on communities and regional/national economies.

In the talk, a brief introduction to earthquake catastrophe modelling and disaster risk financing is given to provide an overview of the research field. Subsequently, a multi-hazard seismic-tsunami catastrophe model for meg-thrust subduction earthquakes (e.g. 2004 Indian Ocean and 2011 Tohoku Japan events) will be discussed to illustrate how catastrophe models work and what outputs can be obtained (e.g. loss exceedance curve) for financial risk management purposes. Several important applications of the catastrophe models to disaster risk insurance and financing (e.g. securitization of disaster risks and parametric catastrophe bonds) are discussed. In particular, impact of scientific uncertainties (as included in catastrophe models) on these insurance/financial products are highlighted.

Via Claudio, 21 – aula Multimediale, ed. 7, 1° piano

Tutti gli interessati sono invitati a partecipare

L'Organizzatore
Prof. Ing. Fatemeh Jalayer

Il Coordinatore del Dottorato
Prof. Ing. Iunio Iervolino