



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**

10-14 giugno 2019, ore 9:00-12:00 e 14:00-16:00

Prof. Iunio Iervolino

(DiSt - Università degli Studi di Napoli Federico II)

Dr. Eugenio Chioccarelli

(CNR)

terranno un Corso breve dal titolo

Probabilistic Seismic Hazard

Lesson 1

Theory (3h): Analysis of seismic catalogues, desclustering, assessment of completeness, earthquake occurrence rates, Gutenberg-Richter laws, ground motion prediction equations, seismic faults and seismogenic zones, site-to-source distance distributions.

Application (2h): Analysis of a declustered catalogue, computation of earthquake occurrence rates for different seismogenic zones.

Lesson 2

Theory (3h): Homogeneous Poisson process and probabilistic seismic hazard analysis; uniform hazard spectra, disaggregation of seismic hazard, peak over the threshold, logic tree.

Application (2h): Probabilistic seismic hazard analysis for a single seismogenic zone.

Lesson 3

Theory (3h): Statistical correlation of spectral intensity measures, correlation structures, conditional spectra, occurrence disaggregation.

Application (2h): numerical computation of conditional spectra.

Lesson 4

Theory (3h): Nonhomogeneous Poisson process, aftershock probabilistic seismic hazard analysis (APSHA), sequence-based probabilistic seismic hazard analysis (SPSHA).

Application (2h): numerical computation of APSHA and SPSHA in simplified conditions.

Lesson 5

Theory (3h): multi-site probabilistic seismic hazard analysis, ground motion prediction models and random Gaussian fields of intensity measures, spatial correlation and spatial cross-correlation, strategies to simulate ground motion intensity measures at multiple sites.

Application (2h): numerical simulation of ground motion intensity measure at multiple sites in a given time interval.

Via Claudio, 21 – edificio 6, aula Manfredi Romano (1° piano)

Tutti gli interessati sono invitati a partecipare

**Il Coordinatore del Dottorato
Prof. Ing. Iunio Iervolino**