UNIVERSITÀ DEGLI STUDI DI TRIESTE

Dipartimento di
Matematica, Informatica e Geoscienze

SEMINAR:

Luis-Fabian Bonilla Hidalgo

"What do we learn from long-term seismic stations? Unveiling site response after 22 years of data in Japan"

K-NET and KiK-net provide extensive earthquake data across Japan, with KiK-net including surface and borehole instruments. NIED offers open access, making this data crucial for studying site effects.
Nonlinear site response, influenced by soil strength and wave amplitude, is traditionally analyzed in labs. However, seismic signal processing now enables in situ velocity change measurements. Using 22 years of KiK-net data from Ibaraki, we observe significant site response variability. Analysis across Japan confirms nonlinear sediment behavior linked to PGA, demonstrating a method applicable to global strong-motion networks.

25 MARCH 2025
10:00 - 12:00

Aula Magna Marussi, Pal. C