UNIVERSITA' DEGLI STUDI DI PADOVA
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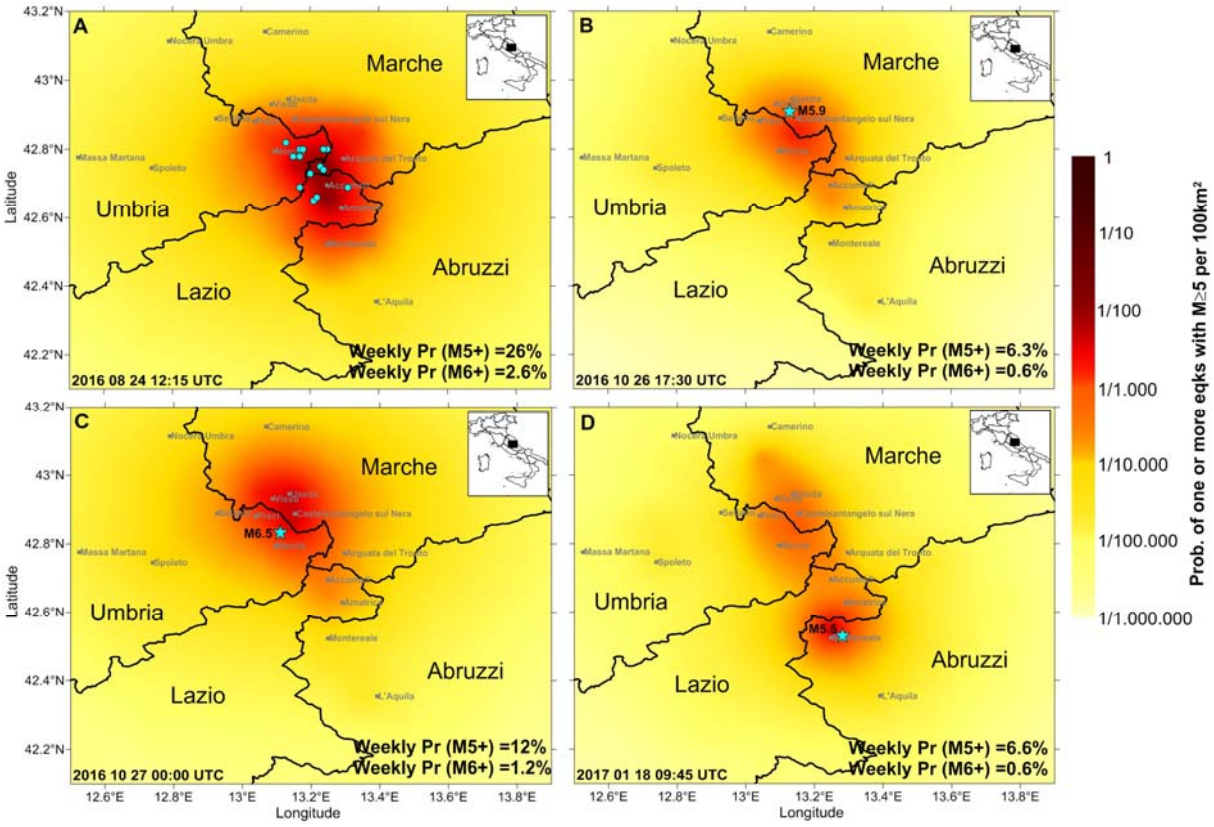
DIPARTIMENTO DI GEOSCIENZE

Seminario

Progress and challenges to earthquake predictability

Martedì 26 marzo 2024 – ore 16:30, Aula Arduino

Relatore: **Warner Marzocchi**
Università degli Studi di Napoli, Federico II



Earthquake predictability is the essential scientific ingredient for any sound seismic risk mitigation planning. But what do we really know about earthquake predictability? Since the optimistic approach to deterministic earthquake prediction in the seventies, seismological community is moving towards probabilistic forecasts, in which seismologists can estimate probabilities for the earthquake occurrence in any specific space-magnitude-time windows. Here I describe the principles of the most reliable earthquake forecasting models in the short (days to months; Operational Earthquake Forecasting) and long (decades; seismic hazard) time windows, and their main implicit physical assumptions and limitations. I also discuss the challenges that these models bring to the earthquake predictability problem, including some potential issues on the interpretation of laboratory experiments.

Proponente: **Giulio Di Toro**