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Session ID: GRM-5

Title

RECENT ADVANCES IN EARTHQUAKE GROUND MOTION MODELING

Convenors

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Description

A key part of deterministic and probabilistic seismic hazard analyses is ground motion models, GMMs, also known as ground motion prediction equations or attenuation models. In recent years there have been major advances in GMMs in terms of extensive expansion of empirical and simulated databases as well the scope and details of model development and intensity measures used. Ergodic GMMs, that are commonly widely used worldwide for seismic hazard, have been expanded in terms of their applicability and details. Emerging non-ergodic GMMs have been formulated and the associated methodologies and software platforms have been successfully developed. The focus of this technical session is on recent advances in GMMs. The presentations will include overview of the on-going major initiative NGA-West3 research program, GMMs for inelastic response spectra, on-going development of non-ergodic GMMs, among other topics.

The session will include presentations by the invited speakers, submitted papers, and a panel discussion.

Invited Speakers

N. Abrahamson ⁴, M. Bahrampouri ⁵, T. Kishida ⁶, G. Lavrentiadis ⁷, J. Stewart ¹

Affiliations

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