



Aleatory and Epistemic uncertainty treatment in Seismic Probabilistic Tsunami Hazard Analysis

Jacopo Selva (1), Stefano Lorito (2), Roberto Basili (2), Daniele Melini (2), Anita Grezio (2), Irene Molinari (2), Alessio Piatanesi (2), Fabrizio Romano (2), Mara Monica Tiberti (2), and Roberto Tonini (2)

(1) Istituto Nazionale di Geofisica e Vulcanologia, Bologna, Italy (jacopo.selva@ingv.it), (2) Istituto Nazionale di Geofisica e Vulcanologia, Rome, Italy

Probabilistic analyses of hazard are based on the assumption that all potential sources of the hazard are included, and weighted according to their relative probability of occurrence. In addition, epistemic variability emerging from alternative modeling approaches should be ideally quantified. Computationally-based SPTHA is characterized by an intrinsically high and almost unaffordable computational cost, resulting in the fact that aleatory variability is usually strongly simplified, while epistemic variability typically is ignored. Here, we propose a new method that tries to conciliate accuracy and precision in SPTHA, allowing to fully exploring all the main sources of both aleatory and epistemic uncertainty.

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