

Plans and progress on "Guidance on the utilization of earthquake-induced GM simulations engineering practice"

Didier Pettinga, Brendon Bradley, Jeff Fraser

QuakeCoRE Flagship 1

Objectives

The key objectives of this project are to engage leading researchers and practitioners (who represent research developers, users, and early industry adopters of ground motion simulations) over the course of two workshops, and ultimately result in this guidance document associated with the utilization of ground motion simulations in engineering practice (authored by the project team with input from workshop participants).

Timeline

- Project team develops guidance outline [March 2016]
- Workshop 1: (i) Presentations on GM simulation and use of GM time series in engineering practice; and (ii) Socialize initial guidance document concepts and elicit input from workshop participants [April 2016]
- Project team develops revised guidance structure and details based on workshop 1 [May 2016]
- Workshop 2: Intention of workshop 2 is to develop wider consensus on the structure and details of the guidance document [July 2016]
- Guidance document publication [August/Sept 2016]

Current document outline

Executive Summary

1. Motivation

2. Objective

3. Document development process

▼ 4. Overview of key ground motion simulation ingredients

4.1. Earthquake source rupture

4.2. 3D model of the earths crust

4.3. Wave propagation methodology

▼ 5. Utilization of ground motion simulations in engineering practice

5.1. Verification

5.2. Validation

5.3. Utilization documentation

6. Examples

7. References

8. List of workshop 1 participants

9. List of workshop 2 participants