

PSHA-SSI Seminars

Risk Engineering, Inc.
Robin K. McGuire
Rockville, MD
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Seminar on PSHA/Site Response/Site Spectra

1. PSHA

- Methods, databases, ground motions
- CAV filter

Seminar on PSHA/Site Response/Site Spectra *(continued)*

2. Site Response

- Site data necessary
- Randomization of site parameters
- Computer software (SHAKE and RVT)
- Results of analysis

Seminar on PSHA/Site Response/Site Spectra *(continued)*

3. Site Hazard

- Approaches 2A, 2B, 2A/3, and 4 to calculate site hazard

Seminar on PSHA/Site Response/Site Spectra *(continued)*

4. Site Spectra

- Generation of design response spectra according to ASCE 43-05
- Review of performance-based results

Seminar on Incoherence and SSI

1. Ground motion incoherence

- Historical perspective of coherency
- Background on derivation of state-of-the-art coherency function
- Coherency function, including variation with embedment depth and effects of site profile (rock vs. soil)

Seminar on Incoherence and SSI *(continued)*

2. Soil Structure Interaction

- Historical perspective
- Coherent SSI Analysis Approaches
- Incorporation of Incoherency effects

Seminar on Incoherence and SSI *(continued)*

3. CLASSI Response Incorporating Incoherency Effects

- Basic discussion of CLASSI
- Incorporation of Incoherency Effects
- Benchmark Problems Performed with CLASSI

Seminar on Incoherence and SSI *(continued)*

4. SASSI Response Incorporating Incoherency Effects

- SASSI Background: ACS SASSI and Bechtel SASSI
- Benchmark Problems Performed with SASSI – ACS SASSI and Bechtel SASSI

Seminar on Incoherence and SSI *(continued)*

5. SSI Input Parameters

- Development of input motion to SSI model (Site-specific SSE vs. input motion: spectra & time histories, vertical input vs. horizontal input motion, and in-column vs. outcrop motion, etc.)
- Defining the soil profiles to use in SSI analysis