Use of LargeN Array Data to Constrain Statistical Properties of Small-Scale Shallow Structure Variability

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Research Priorities: Waveform Correlation Analysis Using LargeN Data

- Use waveform correlation from dense arrays to constrain statistical properties of small scale shallow structure variability (1000 Geophones; 500 C3 and 500 C1)

- Perform large scale simulations of ground motion form M~5 earthquake to test and validate velocity models with stochastic variability.

LargeN Array Layout and underground structure at the NNSS
Cross-Correlation as a Function of Inter-Stations Distance

Tw = 2.0 s

Recorded
TFM
GFM
GFM + S \( h = 400\text{m} \)
GFM + S \( h = 800\text{m} \)
GFM + S \( h = 400\text{m} H = 0.4 \)

Maps

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Southern California Earthquake Center