Remarks from Day 2

Validation, metrics & Acceptance Criteria:

- IMs particularly, matching of response spectrum or spectral acceleration at several periods
- Inter-period correlations of spectral accelerations as another parameter to consider
- **EDPs**: peak drifts, floor accelerations
- Synthetic vs recorded motions applied to tall buildings, bridges & other structures w/ higher modes
- Need applications to low, medium-rise buildings to explore: a) limitations of synthetic motions due to lack of correct high frequency components in the motions, b) effectiveness of methods to improve the limitations

Characterization & Propagation of Uncertainties

- Epistemic & aleatory uncertainties for seismic hazard characterization (parameters & modeling)
- Large number of simulations needed to quantify all uncertainty forms
- Computational workflows of SimCenter for propagating uncertainties in simulations of earthquake performance of buildings & infrastructure in individual structure level and on a regional scale
- Regional scale loss comparisons using recorded GMs vs motions in a finer grid: Losses similar, differences in tagging. Another set of parameters to consider for acceptance of synthetic motions.
- Inverse problem solution methods (e.g., Bayesian inference) might be useful to incorporate synthetic motions in the structural design process.
- Stochastic full waveform inversion algorithm for spatial characterization of P & S-wave velocities

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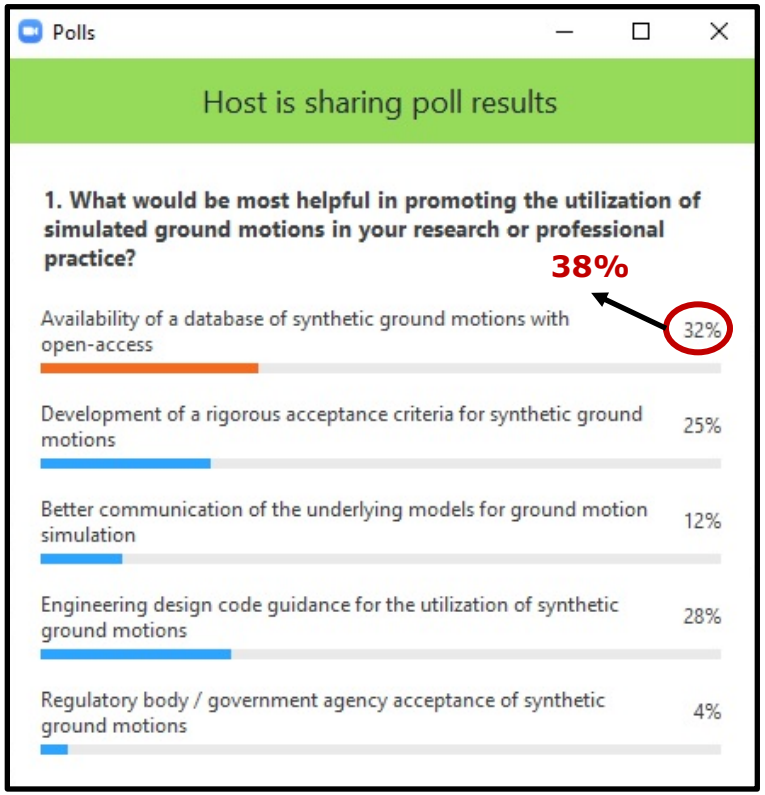
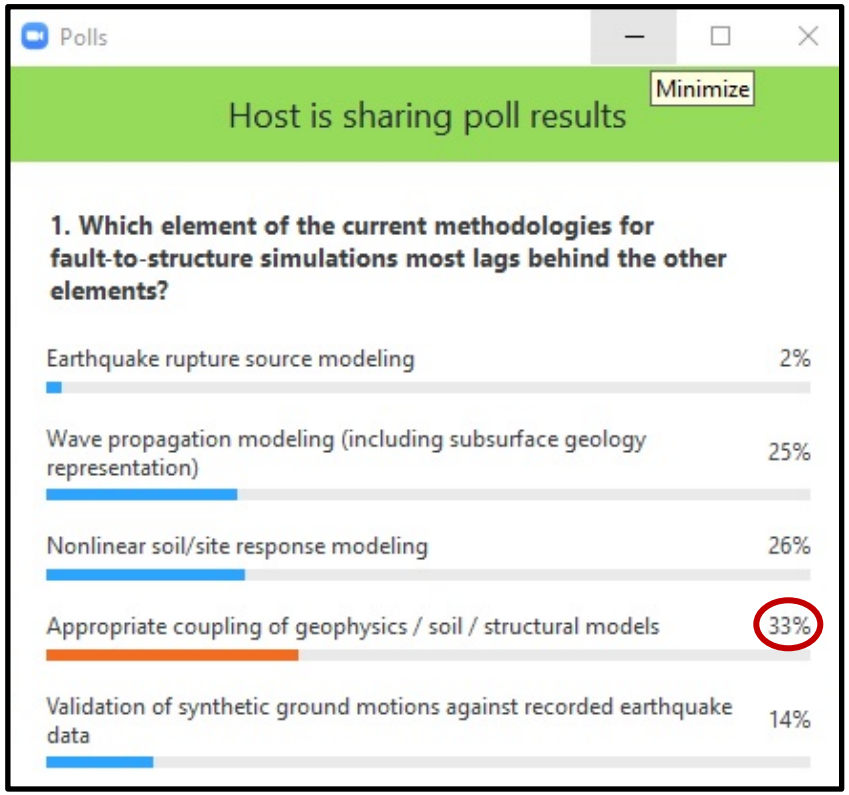
Remarks from Day 2





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