

Site Response Analysis/Modeling Research

People: Ananth Balachandra (UA), Brendon Bradley (UC), Misko Cubrinovski (UC), Hannah Dawson (UA), Chris de la Torre (UC), James Dismuke (UC), Kevin Foster (UC), Connor Hayden (UA), Chris McGann (UC), Romain Meite (UA), Arman Kamalzadeh (UA), Nikolaos Ntritsos (UC), Mick Pender (UA), Liam Wotherspoon (UA)

Analysis Type:

- Equivalent linear: Meite
- Total stress: de la Torre, Dismuke, Foster,
- Effective stress: Balachandra, de la Torre, Ntritsos

Validation:

- Downhole: Dismuke, Foster
- Surface instruments: de la Torre, Ntritsos
- Element testing: McGann, Bradley

SFSI:

- Parametric analysis: Hayden (and future students)
- Verification and validation: Balachandra

Locations:

- Christchurch: de la Torre, Ntritsos
- Wellington: de la Torre
- Other NZ: Meite, Dawson
- Japan/Kik-Net: Dismuke, Foster

Areas for Software Development Team input:

- Streamlined inputs for creation of 1D and 3D column OpenSees models
- Automated generation of site response models from 'raw' site characterisation data
- Optimisation for large models (OpenSeesSP) and parametric uncertainties