Broadband 3D SW4 Simulations of an M 7.0 Hayward Fault Scenario Earthquake

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ShakeMap based on PGV for 3D model with topography, valid to 4.2 Hz (15 m grid spacing)

Fault-normal velocity waveforms at various points show large variations

Cori-II resources for one run:
- 6528 nodes, 417,792 cores
- 87 billion grid points
- 5.5 million CPU-hours

Simulations predict large amplitudes east of the Hayward Fault, due to low wavespeeds in 3D model