

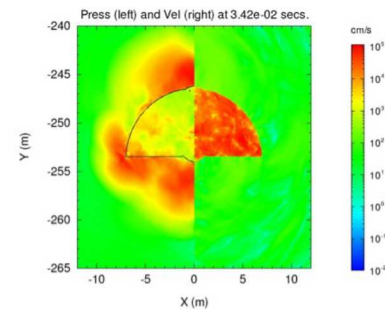
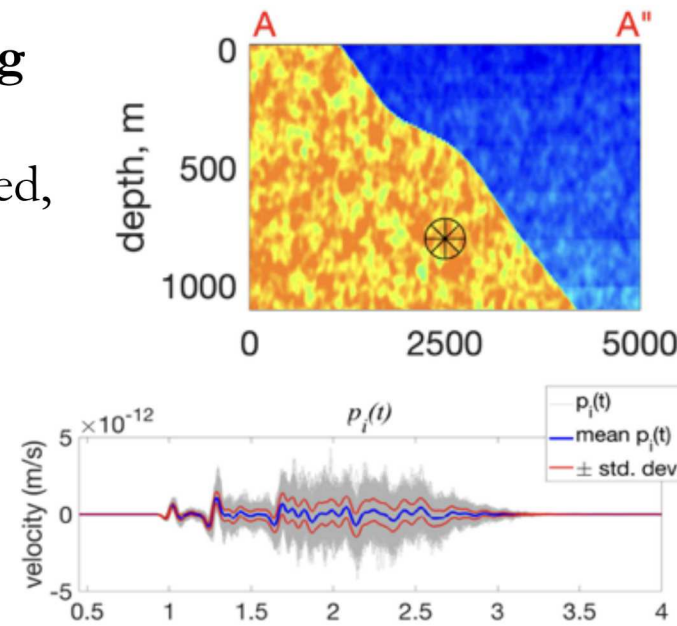
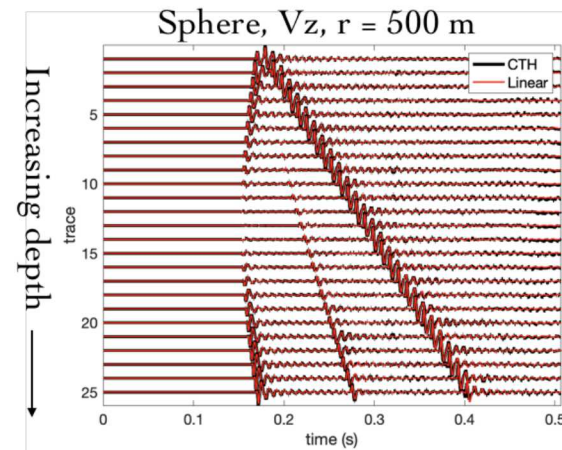
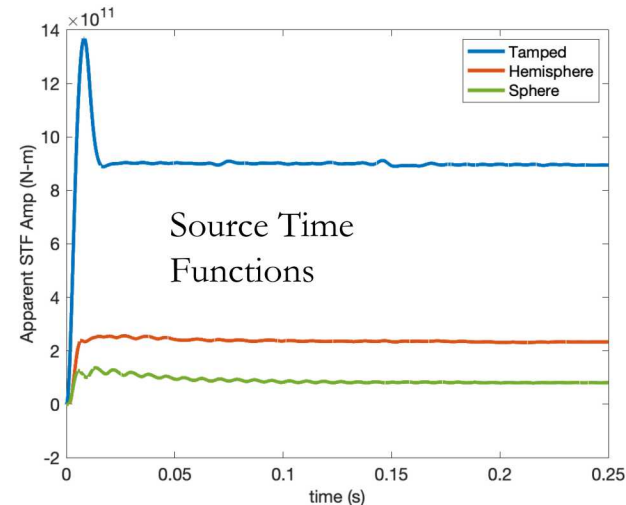
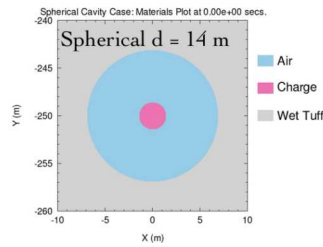
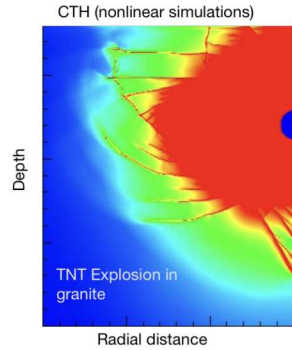
Nonlinear to Linear Modeling Toward an End-to-End Capability

SAND2020-2991PE

Leiph Preston, Christian Poppeliers, Mehdi Eliassi. Sandia National Laboratories

Nonlinear to Linear Modeling

- Nonlinear simulations of chemical explosions in tamped, spherical, and hemispherical cavities
- Moment tensor inversions using pure linear Green's functions match nonlinear results well



Sandia National Laboratories is a multimission laboratory managed and operated by National Technology & Engineering Solutions of Sandia, LLC, a wholly owned subsidiary of Honeywell International Inc., for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-NA0003525.

Stochastic Earth Model Effects

- Produced ensemble of stochastic earth models
- Inverted for moment tensors using all models to quantify uncertainty in solutions

