Exploring deep learning methods for characterizing near-source characteristics of buried explosions from seismic data

Jennifer L. Harding, Leiph A. Preston, Mehdi Eliassi
Sandia National Laboratories, Albuquerque, NM, USA

- Our poster is on exploring deep learning methods for explosion emplacement classification using simulated buried explosion data

- The overarching motivation is to improve estimates of yield or source time functions by using additional information gained from near-source emplacement classifications directly from far-field seismic data

- We explored different deep learning models, architectures, and input spectra bandwidths to evaluate and compare model performance of emplacement classification (tamped or cavity)

- Our work shows promising results for potential future applications, with many potential future directions

- If you want to find out more, come over for a chat in front of our poster

Sandia National Laboratories