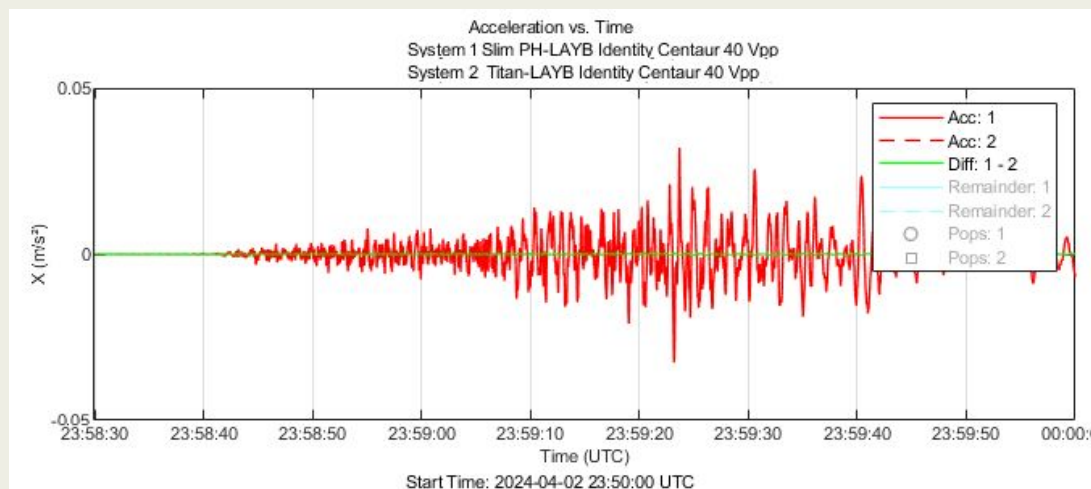


Geoffrey Bainbridge, Bruce Townsend, Marián Jusko
Nanometrics Inc.

P3.1-522

This poster discusses two particular challenges of instrument calibration in the field:

1. Side-by-side calibration using a portable reference sensor works well in a vault, but is problematic for a borehole site, since site response is different at the surface versus at depth. One solution is to install a permanent reference sensor downhole, co-located with the primary sensor. We present data from the Taiwan DSO Network showing high coherence and response matching for pairs of downhole instruments.



2. Sensitivity can vary due to temperature dependence of permanent magnets used in force-feedback sensors. This small effect can be characterized, and corrected if desired by periodically updating sensitivity metadata, using modern seismic sensors that include an internal temperature reporting capability.