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Moment Tensor code for the Antelope Environmental Monitoring System

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The time domain seismic moment tensor inversion software package written by Dreger (2003) and updated by Minson & Dreger (2008) has been rewritten for inclusion into the open-source contributed code repository for the Boulder Real Time Technology (BRTT) Antelope Environmental Monitoring System. The new code-base was written natively in the Python language and utilizes the Python interface to Antelope (Lindquist et al., 2008) for data access, Scientific Tools for Python library (Eric Jones et al., 2001) for computation and analysis, and the ObsPy library (Beyreuther et al., 2010) for graphical representation. The new code archives all data products into a Center for Seismic Studies (CSS) 3.0 schema table for easy access and distribution of solutions. Stability of the analysis, verification of results and correlation of solutions with similar methods are discussed in this presentation. Analysis is focused on regional earthquakes recorded by Earthscope's USArray network and event parameters are taken from real time and post-event processed data analysis at the Array Network Facility (ANF). A calibrated velocity model representative of the south-west continental United States is used for the analysis.

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