

Preliminary results for inversion of broadband waveform data for whole mantle seismic velocity structure

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The final goal of our research is to invert seismic waveform data for 3-D Earth structure. It is critical to invert broadband waveform data using accurate synthetic seismograms, but this is computationally intensive. It is important to verify the accuracy of synthetic seismograms used to perform inversion. In this study, we present preliminary results for (i) verifying the accuracy of broadband synthetic seismograms for a 3-D heterogeneous Earth model and (ii) inversion of broadband waveform data for whole mantle structure.