1-D structure model of D" beneath Central America obtained using waveform inversion

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We conduct waveform inversion for local structure in the Earth's deep interior. We previously developed accurate and efficient methods for computing synthetic seismograms and their partial derivatives, and we now apply them to make a preliminary inversion for the vertical dependence of isotropic shear-velocity in the D" layer beneath Central America, using the transverse components of broadband waveforms as data. Our results are broadly consistent with other recent studies of the fine structure in this region.