



## **Depth of anisotropy in the North American craton from surface wave polarizations**

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Analysis of P-wave traveltimes has shown the the North American craton is characterized by a coherent pattern of anisotropy with significant dip of the fast axis in some regions. The depth distribution of the anisotropy is however little constrained by P-wave analysis, limiting the geodynamical interpretation of the model. Surface wave polarizations are very sensitive to dip of anisotropy and can provide the missing depth-constraint to the model. We present an analysis of surface wave polarizations recorded at a number of stations on the North American craton. We show that the frequency range in which we do not observe polarization anomalies implies that the dipping anisotropy is not located in the upper part of the lithosphere.