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Lithosphere structure in Northern Canada from receiver function (RF)

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We present preliminary results of seismic data analysis for Northern Canada (around the Slave craton and NE of the Hudson Bay) in order to infer the lithosphere and asthenosphere structure beneath various Precambrian terrains of the North American craton.

Seismic analysis includes data processing for the several stations of the Canadian National Seismic Network, for which P and S-velocity profiles are calculated through the simultaneous inversion of receiver functions. We report variations in the Moho depth and sharpness, as well as the depth to the LAB. The results are compared with regional petrological data for xenoliths.