

CGU_S_01: Structure and Dynamics of the Continental Lithosphere and Upper Mantle

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Session Description

In recent years, improvements in both geophysical data coverage and high-performance computing have led to a wealth of new information on the structure and dynamics of the continental crust, lithosphere and upper mantle. Thanks to initiatives like the US EarthScope USArray and Canadian POLARIS projects and their offshoots, new details are emerging on the deep structure of the North American craton and its surroundings. The geophysical models, which shed light on present-day structure, provide valuable new insights into the tectonic history of the continent. Further geophysical and geodynamic modelling sheds new light on the active and ancient formation and evolution of continental lithosphere.

We welcome a broad range of disciplines related to studies of the continental crust, Moho, lithosphere and upper mantle. Topics of interest include, but are not restricted to: data-based geophysical observations and models (e.g. seismic and magnetotelluric models); advances in computational techniques for imaging the continental lithosphere; geodynamic modelling; links between lithospheric architecture, surface tectonics and structural geology.

Primary Affiliation: CGU, Solid Earth

Joint Session Submission: CIG; ES-SSA