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# Structure, composition and dynamics of Earth's interior - probing with neutrinos

**Session Title:** Structure, composition and dynamics of Earth's interior - probing with neutrinos **Session Description:** 

Geoscience presents unique experimental challenges, including measuring the magnitude and distribution of radiogenic heating in the mantle and probing the composition of the core. The emerging field of neutrino geoscience offers novel techniques for tackling these tasks. Ongoing detections of geological neutrinos at Japan and Italy are beginning to resolve radiogenic heating in the mantle, leading to constraints on models of the bulk composition and the thermal evolution of the Earth. Proposed detections of atmospheric neutrinos passing through the core are sensitive to electron density, which can help explain the light element puzzle. This session focuses on recent experimental results and the applications of neutrino geoscience.

Primary Section/Focus Group: Union

**SWIRL Theme:** None

Live Stream/On-Demand: Yes

**Index Terms:** 

1025 Composition of the mantle [GEOCHEMISTRY]

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- Your Session ID# is: 3185.
- Any changes that you make will be reflected instantly in what is seen by the reviewers.
- After the session proposal is submitted, you are not required to go through all submission steps to make edits. For example, click the "Conveners" step in the Session Proposal Control Panel to edit the Conveners and then click save or submit.
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