CIG_03: Lithosphere Dynamics: Computational Infrastructure for Geodynamics

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Session Description

As the rigid outer shell of the Earth and the upper boundary layer of the mantle convective system, the lithosphere plays a fundamental role in the Earth's evolution. However, computational modelling of lithosphere dynamics remains a challenge, as models must encompass wide temporal-spatial scales and incorporate materials with complex, heterogeneous and often poorly constrained properties. Further, recent work highlights the importance of multi-physics processes (e.g., fluid-solid interactions) that are still not fully understood. This session seeks contributions on all aspects of lithosphere dynamics, including studies of specific tectonic areas and those that address computational advances in lithosphere modelling. We also welcome studies that bridge numerical models and observational data and those that link lithosphere dynamics with other parts of the Earth system (e.g., Earth's surface, convecting mantle).

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Joint Session Submission: none