Geowissenschaftliches Kolloquium



Understanding plate tectonics at large: a modelling tale of mantle convection, lithospheric weakness, and supercontinents

Thursday, February 18, 2021. Discussion from 17:00 h

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Plate tectonics makes the Earth unique across the known planets. Why it happens and how it evolves are important questions for understanding the Earth. But while we dive deeper into the planet and go back further in time, data becomes sparser and difficult to interpret. Fortunately, numerical tools can help and I will present a model of "synthetic plate tectonics" to demonstrate the interplay between surface tectonics and the interior and how



this drives the formation of supercontinents like Pangea.

Tobias Rolf completed his doctorate at ETH Zurich in 2013. Since 2014 he is member of the Centre for Earth Evolution and Dynamics (University of Oslo). Since 2019, he is also guest scientist at the University of Münster. His research focuses on the interior evolution of the Earth and Planets, emphasizing on the coupling between mantle convection and surface tectonics.

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Malteserstrasse 74-100 12249 Berlin Presentations: https://fu-berlin.eu.vbrickrev.com/#/media/search?q=geocolloquium Discussion: https://bbb.planet.fu-berlin.de/b/geo-gzn-j9j-yc4

