

Potsdam MEETing 2024

At GFZ – Building A42 - Department 2 - seminar room



Join Zoom Meeting

<https://gfz-potsdam-de.zoom-x.de/j/66034787656?pwd=Pc3YVDEALskeCCeKdf3ss4tJvLBhF8.1>

Day 1 – Tuesday September 17, 2024

8:00 - 09:00 Coffee break

09:00 - 12:00 Working Session A 1– Reports of Pls and Big Picture View moderated by Stephan Sobolev

09:00 - 09:40 **Alex Sobolev** “New results on mantle evolution through data on mantle plumes”

09:40 - 10:20 **John Valley** “Zircon-forming Magmas: Hadean to Recent: What can we learn with Melt Inclusions in Zircon?”

10:20 - 10:40 Coffee break

10:40 - 11:20 **Stephan Sobolev** “Geodynamic modelling of early Earth constrained by geochemical data”

11:20 - 11:50 **Trond Torsvik** “Early Earth and the Boring Billion”

12:00 - 14:00 Standing lunch & Poster session

14:00 - 18:00 Working session A 2 - Continuation moderated by Alexander Sobolev & John Valley

14:00 - 14:30 **Paul Tackley, remote** “Tectonics and plume-induced subduction initiation on Venus and early Earth”

14:30 - 15:00 **Michael Brown, remote** “Is plate tectonics a post-Archean phenomenon? A petrological perspective”

15:00 - 15:30 **Albrecht Hofmann, remote** “Uranium in Earth’s early core explains the terrestrial evolution of lead isotopes”.

15:30 - 16:00 Coffee break

16:00 - 16:30 **Georg Feulner** “Spatially explicit simulations of the effects of tides on the climate on early Earth”

16:30 - 16:50 **Tyler Blum, remote** “High-mass resolution analysis of trace elements in zircon using forward-geometry secondary ion mass spectrometry”

16:50 - 17:20 **Annie Bauer, remote** “Coeval Eoarchean stagnant- and mobile-lid tectonic regimes”

17:20 - 17:40 **Discussion**, moderation by Trond Torsvik

18:30 - 21:30 Dinner at Myliä, Potsdam

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Day 2 – Wednesday September 18, 2024

8:00 - 09:00 Coffee break

09:00 - 12:00 Working Session B – Data and Models

moderation by Charitra Jain

09:00 - 09:20 **Aleksandr Chugunov, remote** “New data on Weltevreden komatiites based on composition of melt inclusions and host olivine”

09:20 - 09:40 **Mateo Esteban** “New data on Belingwe komatiite melts based on olivine-hosted melt inclusions”

09:40 - 10:00 **Francois Holz** “High silica melts in zircon inclusions: is zircon a late-magmatic phase”

10:00 - 10:20 **Adrien Vezinet remote** “Petrogenesis of Kaapvaal Craton, South Africa: Apatite as main target”.

10:20 - 10:40 Coffee break

10:40 - 11:00 **Charitra Jain** “Influence of water and composite rheology on early Earth evolution models”

11:00 - 11:20 **Michael Pons** “Intensified plate tectonics by self-reorganisation of global subduction network post-Snowball Earth”

11:20 - 11:40 **Hannah Davies** “Progress and results from coupling FastScapeLib with geodynamic models (ASPECT) and climate models (CLIMBER-X) on planetary scale”

11:40 - 12:00 **Julius Eberhard** “Modeling Paleozoic icehouse climate as reference for global-scale glaciations”

12:00 - 14:00 Telescope & GFZ tour & standing lunch
organized by Hannah Davies & Michael Pons

14:00 - 16:00 General Discussion

moderated by Stephan Sobolev

16:00 approx End of the event