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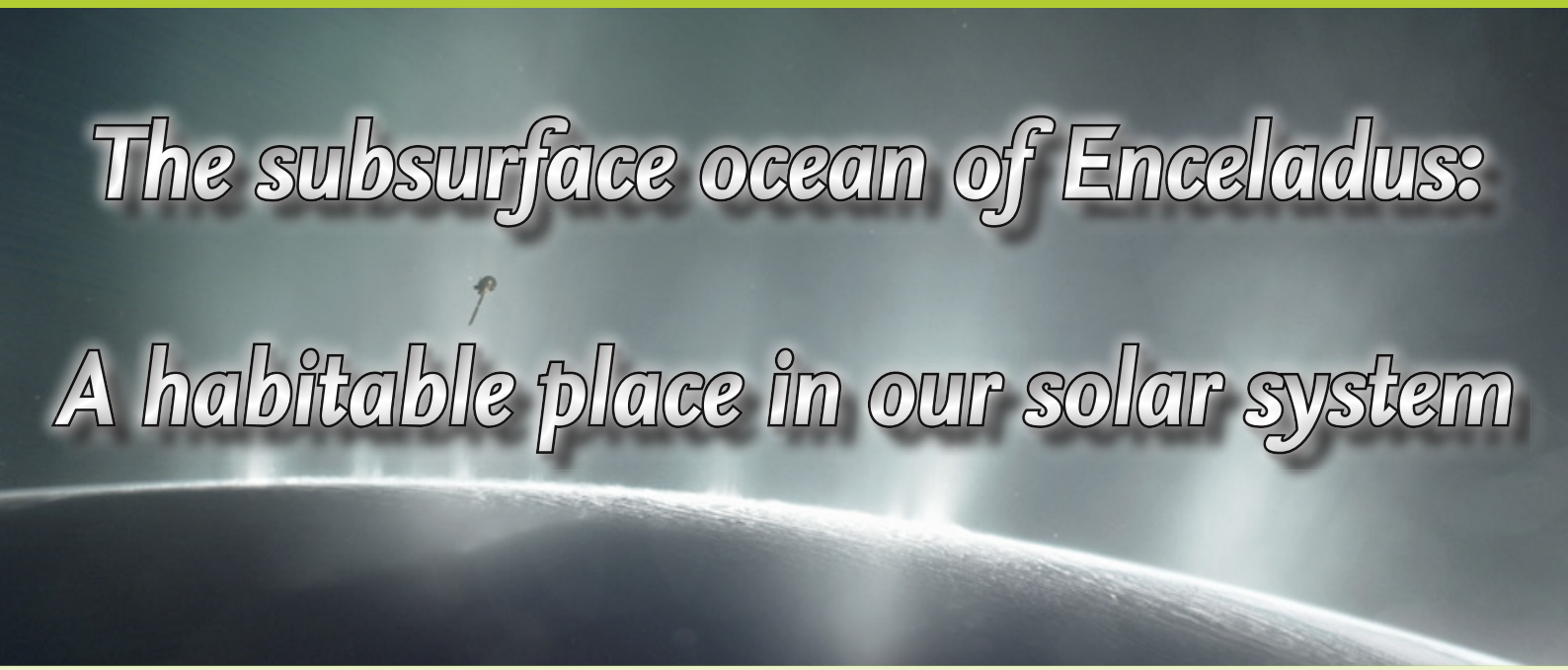
Geowissenschaftliches Kolloquium



The subsurface ocean of Enceladus:

A habitable place in our solar system

Donnerstag, 28. November 2019 - 16.15 Uhr

Frank Postberg

Freie Universität Berlin

Saturn's icy moon Enceladus harbours a global ocean, which lies under an ice crust of just a few kilometres thickness. Through warm cracks in the crust a cryo-volcanic plume ejects ice grains and vapour into space providing access to materials originating from the ocean. The ocean is 30 – 55 km deep and hydrothermal activity is suspected to be occurring at the bottom. The presentation focuses on results from the two mass spectrometers aboard the Cassini spacecraft, which frequently carried out compositional *in situ* measurements of plume material emerging from the subsurface of Enceladus.

Planetary scientist **Prof. Frank Postberg** studied Chemistry and Physics, did his doctorate at Universität Heidelberg and is head of section "Planetary Sciences and Remote Sensing" at the FU Berlin since 2018. His research focussed on the ocean moons of the outer solar system. Since 2004, he investigates the composition of ice particles originating from Enceladus' icy volcanos.

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Institut für Geologische Wissenschaften
Großer Hörsaal (C.011), Haus C
Malteserstrasse 74-100
12249 Berlin

www.geo.fu-berlin.de/geol/kolloquium