Universität Münster

GEOPHYSIK Uni MÜNSTER

Institut für Geophysik

Geophysikalisches Kolloquium

Wintersemester 2024/2025

Montag, 09.12.2024

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Charles University in Prague

Inertial particles in convecting fluids

Convecting fluids can carry small solid particles whose trajectories do not exactly follow the motion of the fluid - inertial particles. Examples of these are all around us, ranging from dust in the atmosphere and plankton in sea, to crystals in a cooling magma reservoir. It is often important to estimate how long the particles stay in the liquid suspension before being deposited at its bottom (or top, for light particles and bubbles of volatiles). Here we perform a systematic 3D numerical study of particle-laden Rayleigh-Bénard convection and derive a robust model of the settling behaviour, yielding a simple analytical formula for the particle residence time.

Das Kolloquium findet um 16:00 Uhr im Seminarraum GEO 315, Corrensstr. 24, 48149 Münster statt. Alle an dem Thema Interessierten sind hierzu herzlich eingeladen.

Die Dozenten des Instituts für Geophysik