

ICTS Fluid Dynamics seminar

Title : Stability and dynamics of convection in dry salt lakes

Speaker : Lucas Goehring

Date : Thursday, 29th February 2024

Time : 11:30 AM (IST)

Abstract : From fairy circles to patterned ground and columnar joints, natural patterns spontaneously appear in many complex geophysical settings. Here, I will discuss the origins of polygonally patterned crusts of salt playa and salt pans. These beautifully regular features, approximately a meter in diameter, are found worldwide and are fundamentally important to the transport of salt and dust in arid regions. I will show how these patterns are consistent with the surface expression of buoyancy-driven convection in the porous soil beneath a salt crust. By combining quantitative results from direct field observations, analogue experiments and numerical simulations, I will show how salt polygons can form from such a convective instability, as well as how their characteristic size emerges.

Venue : Offline: Chern Lecture Hall

Online: Please click the below link to join the seminar.

<https://icts-res-in.zoom.us/j/95216722240?pwd=UmUxZlIGd1M0WnliRFhzZ0NVbDIJUT09>

Meeting ID: 952 1672 2240

Passcode: 202429