



## Absolventenfeier

**Prof. Dr. Klaus Kroy**  
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Di 05.12.23

15:15 Uhr

R 513

mit anssl. Umtrunk

**Host:**  
**Prof. Fuchs**

**Organisation: Prof.**  
**Bechinger**

### Why are sand deserts not flat?

The spontaneous formation and migration of sand waves is a spectacular natural phenomenon, emerging from nothing but wind and sand. It is perceived as both aesthetically fascinating and ecologically and economically threatening. But how exactly does it come about? And why with such a multitude of (fragile and anti-fragile) waveforms and wavelengths in deserts and on sandy beaches, riverbeds, and extraterrestrial bodies? Some robust physical principles, such as the self-similarity and spontaneous symmetry breaking in turbulent flows, help to cut through much of the tortuous details to gain a first foothold. But the dismissed small print strikes back. An intricate interference of various granular and hydrodynamic transport mechanisms on diverse length- and time-scales promises to keep laboratory and field workers, together with their ever optimistic theoreticians, busy for a good while.

