



PHYSIKALISCHES KOLLOQUIUM

EINLADUNG

1.2.2011/Wh

Am Montag, dem 7.2.2011, 16.15 Uhr in W2-1-148

spricht

Prof. Dr. Hans Jürgen Herrmann
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über

“The wonderful world of dunes”

Dunes are aerodynamic instabilities that exist in deserts and along coasts.

I will present the first set of equations of motions that correctly describes the evolution of a free granular surface under the action of wind and gravity.

These equations do indeed reproduce measured dunes quantitatively as has been verified in Morocco and Brazil. The collision of dunes can show solitary wave character or breeding of baby dunes. Adding a further equation for vegetation growth one can study dune fixation and the transition to parabolic dunes. It is also possible to reproduce dunes on Mars explaining their strange shape and getting insight about the local saltation process.

Einladender. Alexander Hartmann