

tkm-hauptseminar – winter 2019/20

# Patterns of Earth

models for our environment:  
clouds – ice – soil – rivers – rock – sand

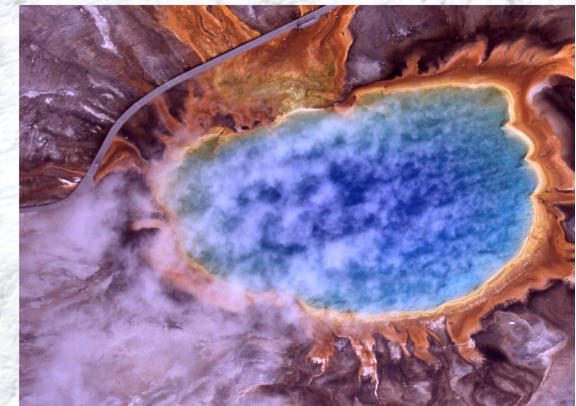
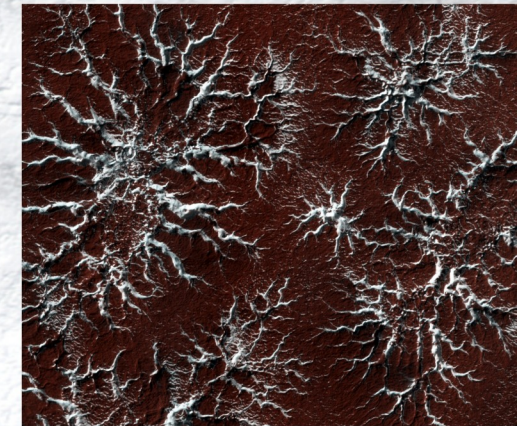
Fundamentals: fluid dynamics, pattern formation  
scaling and self-similarity, drainage divides, coast lines

Phase Transitions: melting, freezing, segregation  
cloud formation, rain initiation, gysers, minerals

Transport: multiphase flow, plastic flow, porous media  
dunes, ripples, glaciers, lava flow, avalanches, deep-sea smokers

Shaping the Surface: fracture dynamics, long-time dynamics  
plate tectonics, faults, subduction, weathering, sea ice

Exoplanets: thermodynamics of geology and climate  
... something *you* always wanted to figure out



Wed 5pm

ITP R211

Krüger, Kroy, Vollmer

