

FRIEDRICH-SCHILLER UNIVERSITÄT JENA - GEOFORSCHUNGSZENTRUM POTSDAM

Diploma Thesis

# **Fault Propagation in mechanically layered Media**

**Insights from scaled extensional analog Models**

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This work gives an overview over spatiotemporal nucleation and propagation of fault zones in extensional tectonic settings. To achieve this a series of simple mechanically layered analogue experiments were exposed to extension and recorded with a Particle Image Velocimetry system. Later vector analysis of the recorded images is used to visualize both the spatial distribution and overall shape of faults but also the temporal distribution of fault activity phases. Investigated were the influence of differing material parameters, different kinematic and different experimenters.

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