

## Borehole image interpretation in the Upper Jurassic reservoir: fracture aperture and orientation

### Background

The function and configuration of fracture corridors in the Upper Jurassic (Malm) geothermal reservoir remain topics of ongoing debate. The factors controlling their location, orientation, and aperture—and how these characteristics relate to hydraulic behaviour—are still poorly constrained. A clearer understanding of these relationships would allow more accurate predictions of productivity and lifetime when developing new geothermal sites. Using an extensive dataset of over 25 borehole image logs—electrical images that visualize the borehole wall texture—this study will conduct a detailed, high-resolution analysis of reservoir structures, local stress perturbations, and lithology to build a comprehensive picture of fracturing in the reservoir. The resulting fracture characteristics will be compared with downhole flow measurements and well performance data to identify proxies for fracture permeability. A parallel thesis will investigate the relationship between fractures and karst.

### Short description

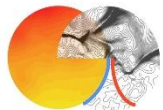
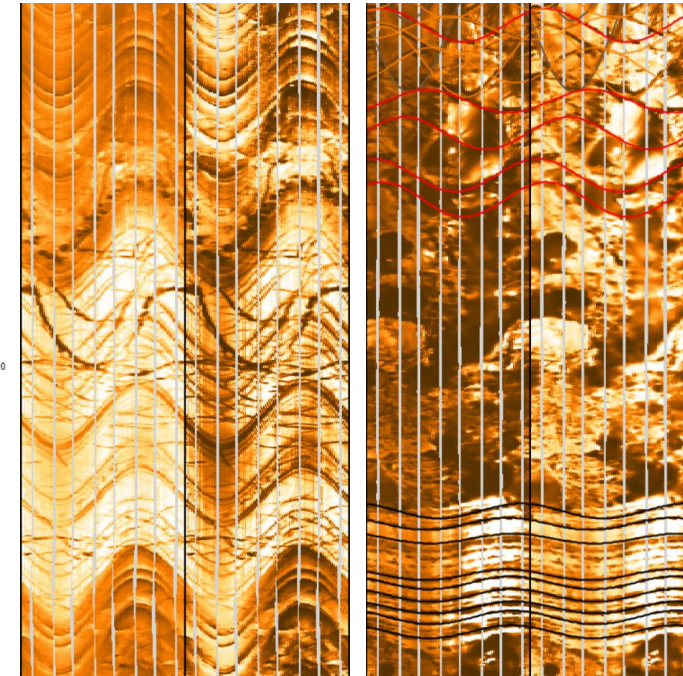
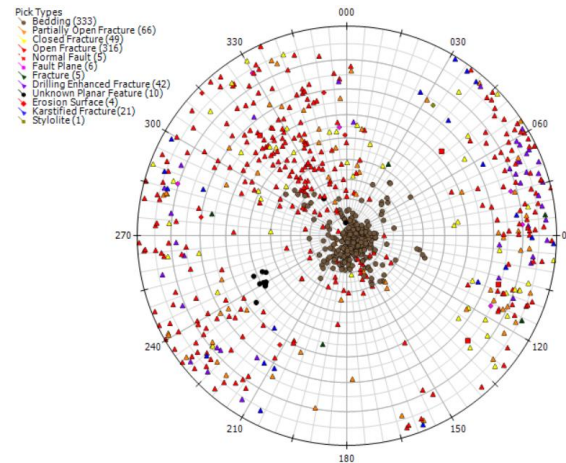
- Structural interpretation of borehole images
- Fracture analysis
- Basin wide correlation of geometries
- Fracture permeability estimation

### Requirements

Background in structural geology  
Interest in fracture mechanics  
Independent and diligent

### Supervisors

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