



# **Bachelor / Master Thesis**

# Microstructure evolution in materials under reciprocating tribological loading; variation of strains

## **Background:**

For sliding interfaces, there is a significant lack of knowledge about the mechanics for the microstructure evolution. An ideal method to understand this evolution is to use samples with a micro-textured surface. We are able to produce samples with a step. Changing the aspect ratio of the steps while keeping the experimental condition constant, we modify different plastic and elastic strains. The elementary mechanisms of friction and wear will be revealed from the approach of variying different strain distributions.

## **Project description:**

- Variation of sliding direction
- Tribological investigations of samples with different aspect ratios

#### **Qualification:**

- Interest in advanced material science experimental methods
- Independence, reliability

#### We offer:

- Intensive support and supervision
- Modern processing methods
- Cutting-edge topic

#### **Interested?**

Please contact: Dr. Christian Greiner, IAM-CMS, greiner@kit.edu,

T: 0721/608-26407

