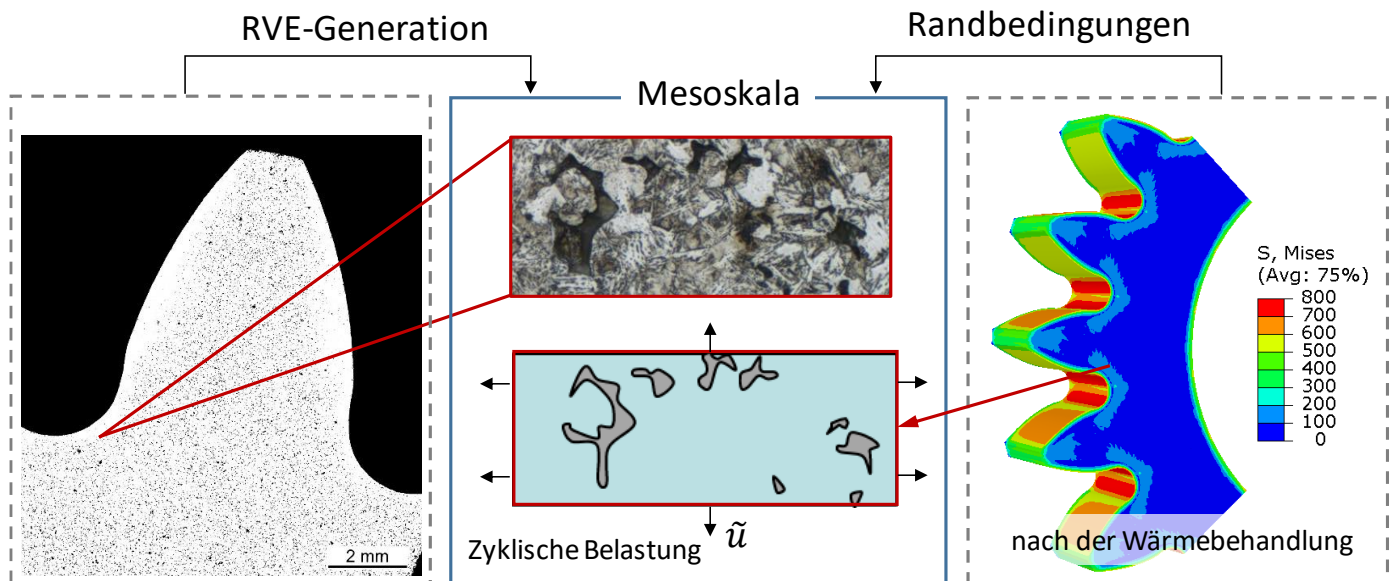


# Mini / Master Thesis

## „Meso-Scale simulation of sintered and case hardened gears“

The bearing capacity of sintered gears is limited due to the porosity. To increase the load bearing capacity, the gears are cold rolled and heat-treated. An ICME approach is used to optimize the densification and heat treatment. In that framework, the cyclic behavior of the hardened samples should be investigated and modeled using the finite element method.



### Requirements

- Good knowledge of materials science and FEM (Abaqus)
- Interest in modeling and numerical simulation
- Interest in planning and executing experimental

### We offer

Comprehensive supervision and good working atmosphere.

### Contact person

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