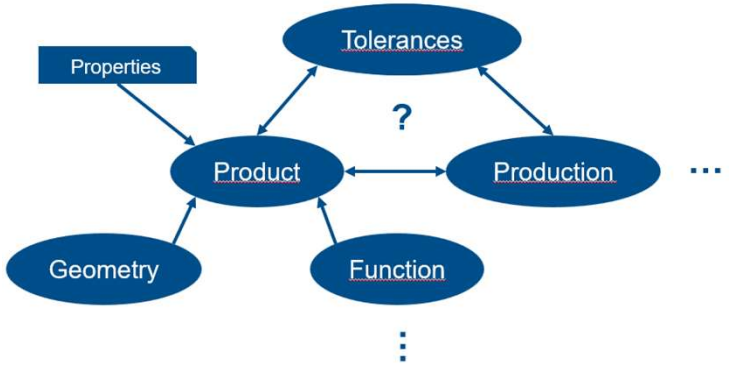
☐ HiWi ☑ Master-Thesis ☐ Bachelor-Thesis ☐ ADP ☐ ARP

Conceptual design of an interface for knowledge-based tolerance allocation between product development and production

Motivation - In order to reduce development and production costs, a continuous flow of knowledge and information between product development and process planning of machined components is being developed as part of the DFG-funded project **WiToPro**. Ontologies are to be used to structure the information flow and the interface between the two domains.

Goal and task description - The aim of this master's thesis is to develop an understanding of product development activities in the CAD-CAM process chain. The knowledge gained is to be structured in the form of an ontology in order to lay the foundation for partially automated knowledge-based tolerance allocation in product development. The individual steps to achieve the goal are:

- Familiarization with the topics of ontologies, product development and the CAD-CAM process chain
- Development of a methodology for creating the product ontology including requirements and boundaries
- Creation, verification and validation of the ontology



Topics:

- Ontologies
- Knowledge-based product development
- Tolerancing
- CAD-CAM process chain

Timo Ackermann, M.Sc.

Otto-Berndt-Straße 2
64287 Darmstadt

Raum: L1|10 203

ackermann@plcm.tu-darmstadt.de

Start: right away

Teamwork: no