



# Antrittsvorlesung Faculty Colloquium

Tuesday, 9 November 2021 at 17:00

**Prof. Dr. Thomas Höche**

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## Microstructure-based materials and process development

Microstructure or rather nanostructure diagnostics has seen huge advancements over the past decades. The real structure of materials including low-dimensional defects can now be investigated at atomic resolution using a combination of cutting-edge techniques.

Illustrated by numerous examples, the necessity of thinking in preparation-characterization workflows is demonstrated. Expensive holistic characterisation efforts form the basis of the establishment of microstructure-property-processing relationships. Such efforts pay off as soon as the advantages of knowledge-based materials design can be used to accomplish accelerated materials development.

Regarding the future of nanostructure diagnostics, a glimpse into work in progress towards upcoming 3D and 4D characterisation techniques is provided. The latter require handling and analysis of huge data sets, leading to never seen challenges and unimagined possibilities.



Venue: Universität Leipzig, Faculty of Physics and Earth Sciences  
04103 Leipzig, Linnéstraße 5, Lecture Hall for Theoretical Physics

Before the lecture we offer coffee in front of the lecture hall.

*Wir bitten Sie, die zurzeit geltenden Maßnahmen der Infektionsschutzvorkehrungen zu beachten:*

- Mund-Nasen-Schutz abseits des eigenen Platzes erforderlich
- Test-, Impf- oder Genesenennachweis erforderlich (3G)
- Kontaktdatenerfassung