

## Invitation to the Oral Examination – Department CE

For the occasion of his examination for a Doctoral Degree,

**Martin Knoche**

will present his dissertation entitled

**Cross-Resolution Face Verification**

on **December 20<sup>th</sup>, 2024** at **15.00 h CET**

Attendance to the presentation is open to the public.  
The presentation will be in English.

The candidate, all members of the Examination Committee, and authorized examiners of the TUM School of CIT are invited to the presentation and subsequent oral examination.

The presentation and subsequent examination will take place in room **N0116, Munich Main Campus, Building N1, Theresienstraße 90, 80333 München**  
<https://nav.tum.de/room/0101.EG.116>

### **Examination committee:**

Chair: Prof. Dr. phil. Tobias Vogl

First Examiner: Prof. Dr.-Ing. Gerhard Rigoll

Second Examiner: Prof. Dr.-Ing. Klaus Diepold

Munich, the 3rd of December 2024

### **Mailing list:**

Members of the examination committee

Doctoral candidate

CIT staff

### **Abstract:**

This dissertation investigates face verification (FV) using images of varying resolutions. It first analyzes how image resolution impacts the performance of FV models before developing new methods for improvement. A new dataset is introduced to achieve standardized evaluation. Additionally, the work summarizes research on the explainability of FV model decisions. The work also demonstrates how integrating human decisions can enhance the accuracy of FV systems in borderline cases.