

Invitation to the Oral Examination – Department CE

For the occasion of his/her examination for a Doctoral Degree,

Markus Andreas Sosnowski

will present his/her dissertation entitled/on

**Improving the Security, Performance, and Availability of TLS-based Systems
on the Internet**

on **21 April 2026** at **16:30 h**

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 00.12.019, CIT Sitzungsraum 2 (5612.EG.019)

And online via Teams

Link: [Doctoral Examination Markus Sosnowski | Teilnehmen an Besprechung in Teams | Microsoft Teams](#)

Examination committee:

Chair: **Prof. Dr.-Ing. Jörg Ott**

First Examiner: **Prof. Dr.-Ing. Georg Carle**

Second Examiner: **Prof. Dr. Matthias Wählisch**

Munich/Garching, the **13th** of **April 2026**

Mailing list:

Members of the examination committee

Doctoral candidate

Abstract:

The Internet is a complex system that has become essential to modern society. Given that most Internet communication relies on Transport Layer Security (TLS), systems based on TLS are of special research interest for achieving a future-proof digital infrastructure. This dissertation focuses on TLS-based systems and offers valuable insights into measuring, modeling, and analyzing these systems to contribute towards a more secure, performant, and available Internet.