

## Invitation to the Oral Examination – Department CS

For the occasion of his examination for a Doctoral Degree,

**Mr. Thomas Hutzelmann**

will present his dissertation entitled

***A Holistic Methodology for Quality Assessment of Intrusion Detection Systems***

on **20. September 2024** at **09:00 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 hybrid form.

In person in room

**00.12.019, CIT Sitzungsraum 2, FMI, Boltzmannstraße 3, 85748 Garching**

and online via Zoom:

<https://tum-conf.zoom-x.de/j/66565203954?pwd=bWQdjanzFyTBX3PLyFHNjvF2JEdzKm.1>

Meeting-ID: 665 6520 3954

Kenncode: 808246

### **Examination committee:**

Chair: **Prof. Dr. Florian Matthes**

First Examiner: **Prof. Dr. Alexander Pretschner**

Second Examiner: **Prof. Dr. Felix Freiling, FAU**

Garching, September 11, 2024

### **Mailing list:**

Members of the examination committee

Doctoral candidate

### **Abstract:**

The standard evaluation schema for intrusion detection systems (IDSs) suffers from high costs and risks of critical oversights. This thesis extends it with two additional steps: (1) An early prefilter to assess numerous candidate IDSs without any implementations, and (2) a final, automatic generation of behavior that is specific and particularly challenging for the classifications of a given IDS. We validate our holistic methodology on a use case from the automotive domain.