

Invitation to the Oral Examination – Department CE

For the occasion of his examination for a Doctoral Degree,
Jörg Alejandro von Mankowski

will present his dissertation entitled

Multi-Radio Access Technology Coexistence and Resource Allocation Approaches for Aircraft Related Communication

on Monday, November 04, 2024 at 3 pm CEST (Munich)

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 **1977 Munich Main Campus, Wienandsbau/Audimax (Z9) Stockwerk 1, Arcisstr.21, 80333 München**
<https://nav.tum.de/room/0509.02.977>

Here is the invitation link for the zoom session:

<https://tum-conf.zoom-x.de/j/65990923691?pwd=Yahlw3NpdalAjmXFziLKM8GTxFtsme.1>

Meeting-ID: 659 9092 3691

Kenncode: 670923

Examination committee:

Chair: **Prof. Dr. Wolfgang Utschick**

First Examiner: **Prof. Dr. Wolfgang Kellerer**

Second Examiner: **Prof. Armin Dekorsy, Universität Bremen**

Munich, September 24, 2024

Mailing list:

Members of the examination committee

Doctoral candidate

Abstract:

This work advances RF-communication for aircraft, addressing the need for improved data rates and connectivity. It presents new channel models derived from ray-tracing and explores beamforming to optimize cabin communication, reducing interference and ensuring fair throughput. Additionally, it introduces a global Multi-Layer Network connecting aircraft to computing resources, employing dynamic service routing and thereby setting the groundwork for future communications and enhanced in-flight services.