

# Symposium Quantum Information and the Quest for Fault-Tolerant Quantum Computing (SYQI)

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Quantum computers have the potential to transform information technology. However, to reach the full potential of quantum computing, errors introduced by external disturbances need to be corrected. Fault-tolerant quantum computing allows for the construction of essentially error-free hardware using error-prone components. In this symposium, three leading experts talk about the beginnings and state of the art of quantum computing hardware and quantum error correction.

## Overview of Invited Talks and Sessions

(Lecture hall ZHG010)

### Invited Talks

SYQI 1.1	Wed	10:45–11:25	ZHG010	<b>Quantum Computing and Simulation in the presence of errors —</b> •IGNACIO CIRAC
SYQI 1.2	Wed	11:25–12:05	ZHG010	<b>Scalable quantum computing with trapped ions —</b> •FERDINAND SCHMIDT-KALER
SYQI 1.3	Wed	12:05–12:45	ZHG010	<b>New opportunities in hybrid atom arrays combining single atoms and ensembles —</b> •WENCHAO XU

### Sessions

SYQI 1.1–1.3	Wed	10:45–12:45	ZHG010	<b>Quantum Information and the Quest for Fault-Tolerant Quantum Computing</b>
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