

# Symposium Quantum Coherence in Quantum Technology (SYQC)

jointly organized by  
the Quantum Optics and Photonics Division (Q) and  
the Atomic Physics Division (A)

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Quantum coherence is a fundamental feature of nature, arising from the superposition principle of quantum mechanics. Very recently, coherence has been recognized as a useful resource for the emerging quantum technologies, which has led to the development of a resource theory of quantum coherence. This theory allows for a systematic study of coherence and its role in fundamental technological applications such as quantum computation and quantum metrology. In this symposium, the speakers report on the most recent theoretical and experimental advances on coherence theory, including its role for control of quantum systems, interferometry, and quantum sensing.

## Overview of Invited Talks and Sessions

(Lecture room RW HS)

### Invited Talks

SYQC 1.1	Thu	14:00–14:30	RW HS	<b>The resource theory of quantum coherence</b> — ●MARTIN B PLENIO
SYQC 1.2	Thu	14:30–15:00	RW HS	<b>Interferometric visibility and coherence</b> — ●ANDREAS WINTER
SYQC 1.3	Thu	15:00–15:30	RW HS	<b>Quantum coherence and interference patterns</b> — ●FLORIAN MINTERT
SYQC 1.4	Thu	15:30–16:00	RW HS	<b>Experiments on directly measuring quantum coherence and using it for quantum sensing</b> — ●CHUAN-FENG LI

### Sessions

SYQC 1.1–1.4	Thu	14:00–16:00	RW HS	<b>Quantum Coherence in Quantum Technology</b>
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