

# High Yield Devices for Photonic Quantum Implementations (SYPQ)

jointly organised by  
the Semiconductor Physics Division (HL) and  
the Working Group young Leaders in Physics (AGyouLeaP)

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The symposium aims at discussing the challenges and achievements in realizing photonic devices for quantum applications. This will cover growth, fabrication, quantum optical measurements, and theoretical modelling. Platforms like semiconductors, organic molecules, and transparent materials will be examples of the discussed topics. Particular attention will be posed in discussing and selecting results which have a clear impact in transferring quantum technologies to real world implementations. Focus will be given as well to all techniques that allows boosting not only the device performances but also the fabrication yield (ideally to mass production), like deterministic technologies, lithography and 3D printed approaches.

## Overview of Invited Talks and Sessions

(Lecture hall H1)

### Invited Talks

SYPQ 1.1	Tue	9:30–10:00	H1	<b>Designing driving protocols for high-fidelity quantum devices using numerically exact predictions</b> — ●MORITZ CYGOREK, ERIK M. GAUGER
SYPQ 1.2	Tue	10:00–10:30	H1	<b>Challenges towards high efficiency quantum dot single photon sources</b> — ●ARNE LUDWIG
SYPQ 1.3	Tue	10:30–11:00	H1	<b>Organic Molecules in photonic quantum technologies</b> — ●COSTANZA TONINELLI
SYPQ 1.4	Tue	11:15–11:45	H1	<b>Quantum-dot single-photon sources for quantum photonic networks</b> — ●PETER MICHLER
SYPQ 1.5	Tue	11:45–12:15	H1	<b>Quantum light sources: entanglement generation in semiconductor nanostructures</b> — ●ANA PREDOJEVIC

### Sessions

SYPQ 1.1–1.5	Tue	9:30–12:15	H1	<b>High Yield Devices for Photonic Quantum Implementations</b>
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