

Symposium Quantum Plasmonics (SYQP)

jointly organized by
the Semiconductor Physics Division (HL),
the Surface Science Division (O), and
the Low Temperature Physics Division (TT)

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A unique property of metallic nanostructures supporting surface plasmon polaritons is their ability to guide light on ultrashort length and time scales. Yet, they mostly behave like passive, linear optical systems with properties dictated by classical Maxwell's equations. Their optical functionality therefore can greatly be enhanced by coupling them to various sorts of quantum emitters. Consequently, hybrid systems comprising metals and quantum emitters are currently attracting substantial interest, giving rise to a newly emerging research area in surface science and semiconductor physics: Quantum Plasmonics.

The symposium aims at bringing together leading experts from semiconductor physics, surface science and quantum optics with common interest in the physics and application of quantum-plasmonic nanostructures. It is the aim of this Symposium to give an introduction into this emerging field and to give perspectives for future work, in particular for young scientists.

Overview of Invited Talks and Sessions

(Lecture Room H1)

Invited Talks

SYQP 1.1	Wed	15:00–15:30	H1	Quantum plasmonics and applications in light harvesting — ●PETER NORDLANDER
SYQP 1.2	Wed	15:30–16:00	H1	Deterministic quantum plasmonics with single nanodiamonds — ●SERGE HUANT, ORIANE MOLLET, AURELIEN CUCHE, AURELIEN DREZET
SYQP 1.3	Wed	16:00–16:30	H1	Optically-active hybrid nanostructures: Exciton-plasmon interaction, Fano effect, and plasmonic chirality — ●ALEXANDER GOVOROV
SYQP 1.4	Wed	17:00–17:30	H1	Quantum nano-optics: Interaction of metallic nano-particles with quantum emitters — ●SALVATORE SAVASTA
SYQP 1.5	Wed	17:30–18:00	H1	Non-dipolar & magnetic interactions with optical antennas — ALBERTO CURTO, MARTIN KUTTGE, MARTA CASTRO-LÓPEZ, ION HANCU, TIM TAMINIAU, ●NIEK VAN HULST

Sessions

SYQP 1.1–1.5	Wed	15:00–18:05	H1	Symposium Quantum Plasmonics (SYQP)
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