Photonic Quantum Sensing SEMINAR

Quantum Sensing of and with Nanoparticles

Prof. Andreas W. Schell (Johannes Kepler University Linz)

Date July 9, 2025

Time 10:30-11:30

Hybrid A1-313, Katsura campus/ Zoom

Registration https://x.gd/SsU2U

Deadline: July 7

We present our ongoing research on nanoparticles, focusing on two key aspects: their application as sensors and the characterization of their properties. To achieve this, we employ advanced microscopic spectroscopy techniques to study defect centers in nanoparticles. For a deeper understanding of their properties, we utilize time-correlated single-photon counting in combination with tunable laser excitation. Once the properties of the nanoparticles are well-characterized, we demonstrate their implementation as sensors, such as in scanning probe applications or for detecting magnetic fields.

Organizer: Photonic Quantum Sensing Science and Engineering Center
Co-organizer: ERATO Takeuchi, QLEAP, WISE Program “Innovation of Advanced Photonic and Electronic Devices”, Kyoto University

Chair: Shigeki Takeuchi (Department of Electronic Science and Engineering, Kyoto University)
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