SAMOP 2023 – SYCC Overview

Symposium From Molecular Spectroscopy to Collision Control at the Quantum Limit (SYCC)

A symposium in honour of Prof. Dr. Eberhard Tiemann.

jointly organised by the Quantum Optics and Photonics Divisions (Q), the Atomic Physics Division (A), the Mass Spectrometry Division (MS), the Molecular Physics Division (MO), and the Quantum Information Division (QI)

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In this symposium, we would like to honor Professor Eberhard Tiemann's scientific work. Professor Tiemann has dedicated almost his entire scientific career to precision molecular spectroscopy of small molecules which extended to the dissociation threshold. This has laid the foundations for precision control of ultracold atomic collisions and atomic interactions and has been the key for numerous exciting experiments with ultracold atomic quantum gases ranging from precision control of atomic interactions for the realization of precise atomic clocks to the observation of novel many-body phases. Furthermore, it has opened the route for the preparation of ultracold gases of diatomic molecules with a vast field of new applications in chemistry and physics.

Overview of Invited Talks and Sessions

(Lecture hall E415)

Invited Talks

SYCC 1.1	Thu	11:00-11:30	E415	The unity of physics: the beauty and power of spectroscopy — •Paul
				Julienne
SYCC 1.2	Thu	11:30-12:00	E415	Using high-resolution molecular spectroscopy to explore how chemical
				reactions work — •Johannes Hecker Denschlag
SYCC 1.3	Thu	12:00-12:30	E415	Monitoring ultracold collisions with laser light — •OLIVIER DULIEU
SYCC 1.4	Thu	12:30-13:00	E415	The birth of a degenerate Fermi gas of molecules — •Jun Ye

Sessions

SYCC 1.1–1.4 Thu 11:00–13:00 E415 From Molecular Spectroscopy to Collision Control at the Quantum Limit