

Molecular Physics Division

Fachverband Molekülphysik (MO)

Jochen Küpper

Center for Free-Electron Laser Science
Deutsches Elektronen-Synchrotron DESY
Hamburg
and
Department of Physics
Universität Hamburg
jochen.kuepper@cfel.de

Overview of Invited Talks and Sessions

(Lecture halls HS 3042, HS 3044, and HS 1015; Poster Tent C)

Invited Talks

MO 1.1	Mon	11:00–11:30	HS 3044	Imaging ultrafast molecular dissociation dynamics; from conventional to surprising paths — •HEIDE IBRAHIM
MO 15.1	Wed	14:30–15:00	HS 3042	Metal Cluster opportunities — •GEREON NIEDNER-SCHATTEBURG
MO 19.1	Thu	11:00–11:30	HS 3044	Controlling the internal quantum states of chiral molecules — JUHYEON LEE, ELAHE ABDIHA, BORIS SARTAKOV, GERARD MEIJER, •SANDRA EIBENBERGER-ARIAS

Invited Talks of the joint Symposium SAMOP Dissertation Prize 2024 (SYAD)

See SYAD for the full program of the symposium.

SYAD 1.1	Mon	14:30–15:00	Paulussaal	Quantum steering of a Szilárd engine — •KONSTANTIN BEYER
SYAD 1.2	Mon	15:00–15:30	Paulussaal	Does a disordered Heisenberg quantum spin system thermalize? — •TITUS FRANZ
SYAD 1.3	Mon	15:30–16:00	Paulussaal	Quantum optical few-mode models for lossy resonators — •DOMINIK LENTRODT
SYAD 1.4	Mon	16:00–16:30	Paulussaal	Non-Hermitian topology and directional amplification — •CLARA WANJURA

Invited Talks of the joint Symposium Coulomb Explosion Imaging (SYCE)

See SYCE for the full program of the symposium.

SYCE 1.1	Tue	11:00–11:30	Paulussaal	Dissociation of halogenated organic molecules induced by soft X-rays – pathways and early stages — •EDWIN KUKK
SYCE 1.2	Tue	11:30–12:00	Paulussaal	X-ray induced Coulomb explosion imaging with channel-selectivity — •REBECCA BOLL
SYCE 1.3	Tue	12:00–12:30	Paulussaal	Time-resolved Coulomb Explosion Imaging using X-ray Free-Electron Lasers — •TILL JAHNKE
SYCE 1.4	Tue	12:30–13:00	Paulussaal	Dynamics and control of microsolvated biomolecules studied by Coulomb explosion imaging — •SEBASTIAN TRIPPEL, JOCHEN KÜPPER

Prize Talks of the joint Awards Symposium (SYAS)

See SYAS for the full program of the symposium.

SYAS 1.1	Tue	15:00–15:30	Paulussaal	Quantum Simulations with Atoms, Molecules and Photons — •IMMANUEL BLOCH
----------	-----	-------------	------------	---

SYAS 1.2	Tue	15:30–16:00	Paulussaal	Spectroscopy of molecules with large amplitude motions: a journey from molecular structure to astrophysics. — •ISABELLE KLEINER
SYAS 1.3	Tue	16:00–16:30	Paulussaal	Quantum x-ray nuclear optics: progress and prospects — •OLGA KOCHAROVSKAYA
SYAS 1.4	Tue	16:30–17:00	Paulussaal	3D printed complex microoptics: fundamentals and first benchmark applications — •HARALD GIESSEN

Invited Talks of the joint Symposium Controlled Molecular Collisions (SYCC)

See SYCC for the full program of the symposium.

SYCC 1.1	Wed	11:00–11:30	Paulussaal	Dynamics of CO₂ activation by transition metal ions - The importance of intersystem crossing — •JENNIFER MEYER
SYCC 1.2	Wed	11:30–12:00	Paulussaal	Angular momentum of small molecules: quasiparticles and topology — •MIKHAIL LEMESHKO
SYCC 1.3	Wed	12:00–12:30	Paulussaal	Manoeuvring chemical reactions one degree of freedom at a time — •JUTTA TOSCANO
SYCC 1.4	Wed	12:30–13:00	Paulussaal	Cold and controlled collisions using tamed molecular beams — •SEBASTIAAN VAN DE MEERAKKER

Invited Talks of the joint Symposium Size Selected Metal Cluster Spectroscopies (SYMC)

See SYMC for the full program of the symposium.

SYMC 1.1	Thu	11:00–11:30	Paulussaal	Infrared spectroscopic studies of molecular activation at metal clusters — •STUART MACKENZIE
SYMC 1.2	Thu	11:30–12:00	Paulussaal	Dynamic metal-metal cooperation in chemical reactions — •JANA ROITHOVÁ
SYMC 1.3	Thu	12:00–12:30	Paulussaal	A closer look at the electronic structure of simple metal clusters — •BERND VON ISSENDORFF
SYMC 1.4	Thu	12:30–13:00	Paulussaal	IR action spectroscopy of metal clusters, complexes and diatomics with free electron lasers — •ANDRÉ FIELICKE

Invited Talks of the joint Symposium Ultrafast Quantum Nano-Optics (SYQO)

See SYQO for the full program of the symposium.

SYQO 1.1	Fri	11:00–11:30	Paulussaal	Coherent and incoherent dynamics of colloidal plexcitonic nanohybrids — •ELISABETTA COLLINI
SYQO 1.2	Fri	11:30–12:00	Paulussaal	Dissipative Many-Body Dynamics in Atomic Subwavelength Arrays in Free Space — •STEFAN OSTERMANN
SYQO 1.3	Fri	12:00–12:30	Paulussaal	Quantum dot sources: efficiency, entanglement, and correlations. — •ANA PREDOJEVIĆ
SYQO 1.4	Fri	12:30–12:45	Paulussaal	Compact chirped fiber Bragg gratings for single-photon generation from quantum dots — •VIKAS REMESH, RIA KRÄMER, RENÉ SCHWARZ, FLORIAN KAPPE, YUSUF KARLI, THOMAS BRACHT, SAIMON COVRE DA SILVA, ARMANDO RASTELLI, DORIS REITER, STEFAN NOLTE, GREGOR WEIHS
SYQO 1.5	Fri	12:45–13:00	Paulussaal	Observing Ultrafast Coherent Dynamics following Selective Excitation of a Single Quantum Dot — •DARIUS HASHEMI KALIBAR, PHILIPP HENZLER, RON TENNE, ALFRED LEITENSTORFER

Sessions

MO 1.1–1.7	Mon	11:00–13:00	HS 3044	Coulomb-explosion Imaging (joint session MO/A)
MO 2.1–2.8	Mon	11:00–13:00	HS 1098	Attosecond Physics I (joint session A/MO)
MO 3.1–3.8	Mon	17:00–19:00	HS 1015	Novel Spectroscopies
MO 4.1–4.6	Mon	17:00–18:30	HS 3044	Strong-field Ionization and Imaging (joint session MO/A)
MO 5.1–5.7	Tue	11:00–13:00	HS 1010	Interaction with Strong or Short Laser Pulses I (joint session A/MO)

MO 6.1–6.8	Tue	11:00–13:00	HS 3044	Ultracold Molecules and Precision Spectroscopy (joint session MO/Q)
MO 7.1–7.18	Tue	17:00–19:00	Tent C	Poster: Spectroscopy
MO 8.1–8.6	Tue	17:00–19:00	Tent C	Poster: Collisions
MO 9.1–9.7	Wed	11:00–13:00	HS 1010	Attosecond Physics II / Interaction with VUV and X-ray light (joint session A/MO)
MO 10.1–10.6	Wed	11:00–13:00	HS 1015	Ultracold Molecules (joint session Q/MO)
MO 11.1–11.7	Wed	11:00–12:45	HS 3044	X-ray Spectroscopy
MO 12	Wed	13:00–14:00	HS 3044	Members' Assembly
MO 13.1–13.8	Wed	14:30–16:30	HS 1010	Interaction with Strong or Short Laser Pulses II (joint session A/MO)
MO 14.1–14.8	Wed	14:30–16:30	HS 1015	Atomic Clusters (joint session A/MO)
MO 15.1–15.7	Wed	14:30–16:30	HS 3042	Spectroscopy of Metal Clusters
MO 16.1–16.8	Wed	14:30–16:30	HS 3044	Ultrafast Dynamics I
MO 17.1–17.12	Wed	17:00–19:00	Tent C	Poster: Cold Molecules
MO 18.1–18.12	Wed	17:00–19:00	Tent C	Poster: Cluster
MO 19.1–19.6	Thu	11:00–12:45	HS 3044	Chirality
MO 20.1–20.9	Thu	14:30–16:45	HS 3042	Theoretical Molecular Physics
MO 21.1–21.9	Thu	14:30–16:45	HS 3044	Ultrafast Dynamics II
MO 22.1–22.9	Thu	17:00–19:00	Tent C	Poster: Molecules in Strong Fields
MO 23.1–23.9	Thu	17:00–19:00	Tent C	Poster: Chirality
MO 24.1–24.8	Thu	17:00–19:00	Tent C	Poster: Experimental Techniques
MO 25.1–25.7	Fri	11:00–12:45	HS 3044	Novel Experimental Approaches
MO 26.1–26.6	Fri	14:30–16:00	HS 3042	Cluster
MO 27.1–27.8	Fri	14:30–16:30	HS 3044	Ultrafast Dynamics III and High-harmonic Generation (joint session MO/A)

Members' Assembly of the Molecular Physics Division

Wednesday 13:00–14:00 HS 3044