

## Mass Spectrometry Division Fachverband Massenspektrometrie (MS)

Yury A. Litvinov  
GSI Helmholtzzentrum für Schwerionenforschung GmbH  
Planckstraße 1  
64291 Darmstadt  
y.litvinov@gsi.de

### Overview of Invited Talks and Sessions

(Lecture hall F128; Poster Empore Lichthof)

#### Invited Talks

MS 1.1	Tue	11:00–11:30	F128	<b>Lasers against barium – Detection of <math>^{135}\text{Cs}</math> in the environment by AMS</b> — ●ALEXANDER WIESER, JOHANNES LACHNER, SILKE MERCHEL, MARTIN MARTSCHINI, ANAËLLE MAGRE, JUDITH KOBLER WALDIS, OSCAR MARCHHART, ROBIN GOLSER
MS 3.1	Wed	14:30–15:00	F128	<b>Durable, low-temperature and highly-selective catalysis in NO reduction and CO oxidation driven by uni-sized Pt clusters supported on Si and SiC substrates</b> — ●HISATO YASUMATSU
MS 4.1	Thu	11:00–11:30	F128	<b>Observation of the radiative decay of the thorium-229 nuclear clock isomer</b> — ●SANDRO KRAEMER
MS 4.2	Thu	11:30–12:00	F128	<b>Mass measurements of heavy and superheavy nuclides and isomers with SHIPTRAP</b> — ●MANUEL J. GUTIÉRREZ
MS 8.1	Fri	11:00–11:30	F128	<b>Two color resonant laser SNMS for isotope micro imaging of nuclear fuel debris</b> — ●TETSUO SAKAMOTO
MS 9.1	Fri	14:30–15:00	F128	<b>Developments to improve antiproton and other mass measurements</b> — ●CHRISTIAN SMORRA ON BEHALF OF THE BASE COLLABORATION

#### Invited Talks of the joint Symposium Precision Physics with Highly Charged Ions

See SYHC for the full program of the symposium.

SYHC 1.1	Mon	11:00–11:30	E415	<b>First experiments at CRYRING@ESR</b> — ●ESTHER BABETTE MENZ, MICHAEL LESTINSKY, HÅKAN DANARED, CLAUDE KRANTZ, ZORAN ANDELKOVIC, CARSTEN BRANDAU, ANGELA BRÄUNING-DEMIAN, SVETLANA FEDOTOVA, WOLFGANG GEITHNER, FRANK HERFURTH, ANTON KALININ, INGRID KRAUS, UWE SPILLMANN, GLEB VOROBYEV, THOMAS STÖHLKER
SYHC 1.2	Mon	11:30–12:00	E415	<b>Testing quantum electrodynamics in the simplest and heaviest multi-electronic atoms</b> — ●MARTINO TRASSINELLI
SYHC 1.3	Mon	12:00–12:30	E415	<b>Indirect measurements of neutron-induced reaction cross-sections at heavy-ion storage rings</b> — ●BEATRIZ JURADO
SYHC 1.4	Mon	12:30–13:00	E415	<b>Laboratory X-ray Astrophysics with Trapped Highly Charged Ions at Synchrotron Light Sources</b> — ●SONJA BERNITT
SYHC 2.1	Mon	17:00–17:30	E415	<b>Observation of metastable electronic states in highly charged ions by Penning-trap mass spectrometry</b> — ●KATHRIN KROMER, MENNO DOOR, PAVEL FILIANIN, ZOLTÁN HARMAN, JOST HERKENHOFF, PAUL INDELICATO, CHRISTOPH H. KEITEL, DANIEL LANGE, CHUNHAI LYU, YURI N. NOVIKOV, CHRISTOPH SCHWEIGER, SERGEY ELISEEV, KLAUS BLAUM
SYHC 2.2	Mon	17:30–18:00	E415	<b>Towards extreme-ultraviolet optical clocks</b> — ●JOSÉ R. CRESPO LÓPEZ-URRUTIA
SYHC 2.3	Mon	18:00–18:30	E415	<b>Coupling atomic and nuclear degrees of freedom in highly charged ions</b> — ●ADRIANA PÁLFFY
SYHC 2.4	Mon	18:30–19:00	E415	<b>Laser Spectroscopy at the Storage Rings of GSI/FAIR</b> — ●WILFRIED NÖRTERSCHÄUSER

## Invited Talks of the joint Symposium SAMOP Dissertation Prize 2023

See SYAD for the full program of the symposium.

SYAD 1.1	Mon	14:30–15:00	E415	<b>Quantum gas magnifier for sub-lattice resolved imaging of 3D quantum systems</b> — ●LUCA ASTERIA
SYAD 1.2	Mon	15:00–15:30	E415	<b>From femtoseconds to femtometers – controlling quantum dynamics in molecules with ultrafast lasers</b> — ●PATRICK RUPPRECHT
SYAD 1.3	Mon	15:30–16:00	E415	<b>Particle Delocalization in Many-Body Localized Phases</b> — ●MAXIMILIAN KIEFER-EMMANOULIDIS
SYAD 1.4	Mon	16:00–16:30	E415	<b>Feshbach resonances in a hybrid atom-ion system</b> — ●PASCAL WECKESSER

## Prize Talks of the joint Awards Symposium

See SYAS for the full program of the symposium.

SYAS 1.1	Tue	14:35–15:05	E415	<b>The Reaction Microscope: A Bubble Chamber for AMOP</b> — ●JOACHIM ULLRICH
SYAS 1.2	Tue	15:05–15:35	E415	<b>Quantum Computation and Quantum Simulation with Strings of Trapped Ca<sup>+</sup> Ions</b> — ●RAINER BLATT
SYAS 1.3	Tue	15:35–16:05	E415	<b>Amplitude, Phase and Entanglement in Strong Field Ionization</b> — ●SEBASTIAN ECKART
SYAS 1.4	Tue	16:05–16:35	E415	<b>All-optical Nonlinear Noise Suppression in Mode-locked Lasers and Ultrafast Fiber Amplifiers</b> — ●MARVIN EDELMANN

## Invited Talks of the joint Symposium From Molecular Spectroscopy to Collision Control at the Quantum Limit

See SYCC for the full program of the symposium.

SYCC 1.1	Thu	11:00–11:30	E415	<b>The unity of physics: the beauty and power of spectroscopy</b> — ●PAUL JULIENNE
SYCC 1.2	Thu	11:30–12:00	E415	<b>Using high-resolution molecular spectroscopy to explore how chemical reactions work</b> — ●JOHANNES HECKER DENSCHLAG
SYCC 1.3	Thu	12:00–12:30	E415	<b>Monitoring ultracold collisions with laser light</b> — ●OLIVIER DULIEU
SYCC 1.4	Thu	12:30–13:00	E415	<b>The birth of a degenerate Fermi gas of molecules</b> — ●JUN YE

## Invited Talks of the joint PhD-Symposium – Many-body Physics in Ultracold Quantum Systems

See SYPD for the full program of the symposium.

SYPD 1.1	Thu	14:30–15:00	E415	<b>Entanglement and quantum metrology with microcavities</b> — ●JAKOB REICHEL
SYPD 1.2	Thu	15:00–15:30	E415	<b>Many-body physics in dipolar quantum gases</b> — ●FRANCESCA FERLAINO
SYPD 1.3	Thu	15:30–16:00	E415	<b>Quantum Simulation: from Dipolar Quantum Gases to Frustrated Quantum Magnets</b> — ●MARKUS GREINER
SYPD 1.4	Thu	16:00–16:30	E415	<b>Quantum gas in a box</b> — ●ZORAN HADZIBABIC

## Sessions

MS 1.1–1.7	Tue	11:00–13:00	F128	<b>Accelerator Mass Spectrometry I</b>
MS 2.1–2.5	Wed	11:00–12:15	F128	<b>Multi-Reflection Time-of-Flight Spectrometers</b>
MS 3.1–3.5	Wed	14:30–16:00	F128	<b>Mass Spectrometry Applications</b>
MS 4.1–4.6	Thu	11:00–13:00	F128	<b>Heavy and Superheavy Elements</b>
MS 5	Thu	13:00–13:30	F128	<b>Members' Assembly</b>
MS 6.1–6.8	Thu	14:30–16:30	F128	<b>Accelerator Mass Spectrometry II</b>
MS 7.1–7.13	Thu	16:30–19:00	Empore Lichthof	<b>Poster</b>
MS 8.1–8.6	Fri	11:00–12:45	F128	<b>Accelerator Mass Spectrometry III</b>
MS 9.1–9.7	Fri	14:30–16:30	F128	<b>Penning traps, highest precision, neutrino physics, storage rings, new facilities and approaches</b>

## Members' Assembly of the Mass Spectrometry Division

Thursday 13:00–13:30 Raum F128

- Report
- Miscellaneous