

# The 10<sup>th</sup> International workshop on ELECTROSTATIC STORAGE DEVICES ESD 10



**Auditorium:** building 1523, 3<sup>rd</sup> floor  
**Lunch/poster session:** building 1520, 7<sup>th</sup> floor

**Monday 16th June**

## 09.00 - 10.30 Session 1: Opening – Chair: Henrik B. Pedersen

09.00 - 09.15 Welcome

09.15 - 10.00 **Opening lecture:** *Three decades of electrostatic ion trapping: Already?*  
**Daniel Zajfman**, Weizmann Institute of Science, Rehovot, IL

10.00 - 10.30 *Probing molecular mutual neutralization reactions of atmospheric importance using the ion storage facility DESIREE*  
**Richard Thomas**, Stockholm University, SE

10.30 - 11.00 Coffee break

## 11.00 - 12.40 Session 2: Internal dynamics in molecules – Chair: Andreas Wolf

11.00 - 11.30 *State manipulations of negative ions during storage*  
**Dag Hanstorp**, University of Gothenburg, SE

11.30 - 12.00 *Peptide Bond Formation in Amino Acid Clusters*  
**Yoni Toker**, Bar Ilan University, IL

12.00 - 12.20 *The not even just odd even-odd effect in the cooling of gold clusters*  
**Klavs Hansen**, Tianjin University, CN

12.20 - 12.40 *Internal decay processes in homonuclear dimer anions using trapped ions in an EIBT and electron spectrometer*  
**Oded Heber**, Weizmann Institute of Science, Rehovot, IL

12.40 - 13.30 Lunch break

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| <b>13.30 - 15.10</b> | <b>Session 3: Related fields &amp; perspectives</b> – Chair: Holger Kreckel                                                                                                   |
| 13.30 - 14.00        | <i>Charge-Detection Mass Spectrometry and Hypervelocity Ice Grain Impacts</i><br><b>Robert Continetti</b> , University of California San Diego, USA                           |
| 14.00 - 14.30        | <i>Quantum or Classical? Rethinking Laser-Matter Interactions in Intense Fields</i><br><b>Lars Bojer Madsen</b> , Aarhus University, DK                                       |
| 14.30 - 14.50        | <i>Minute-scale Storage of Multiply Charged Helium Nanodroplets inside an Electrostatic Ion Beam Trap</i><br><b>Matthias Veternik</b> , University of Innsbruck, AT           |
| 14.50 - 15.10        | <i>Development of an X-ray photoelectron spectrometer to investigate chirality in biomolecular ions</i><br><b>Bart Oostenrijk</b> , Deutsches Elektronen-Synchrotron DESY, DE |
| <b>15.10 – 17.00</b> | <b>Poster session I</b>                                                                                                                                                       |

## Tuesday 17th June

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| <b>09.00 - 10.25</b> | <b>Session 4: Photo-induced processes &amp; spectroscopy</b> – Chair: Steen Brøndsted Nielsen                                                                                                               |
| 09.00 - 09.45        | <b>Topical lecture:</b> <i>Spectroscopy and dynamics of cold molecular ions</i><br><b>Lars H. Andersen</b> , Aarhus University, DK                                                                          |
| 09.45 - 10.05        | <i>IR and UV spectroscopy of gas-phase monohydrated protonated guanine</i><br><b>Satchin Soorkia</b> , Université Paris-Saclay, FR                                                                          |
| 10.05 - 10.25        | <i>Freezing Out Structural Effects: Gas-Phase Fluorescence from Rhodamine Homodimers and Trimers at Cryogenic Temperatures</i><br><b>Iden Djavani-Tabrizi</b> , Aarhus University, DK                       |
| 10.25 - 11.00        | Coffee break                                                                                                                                                                                                |
| <b>11.00 - 12.30</b> | <b>Session 5: New techniques &amp; developments</b> – Chair: Christine Joblin                                                                                                                               |
| 11.00 - 11.30        | <i>Measurement of dissociation and radiative cooling rate of PAH cations using room temperature and cryogenic electrostatic storage rings</i><br><b>Jerome Bernard</b> , Claude Bernard University Lyon, FR |
| 11.30 - 11.50        | <i>A new setup to study the reactivity and spectroscopy of isomer selected molecular clusters</i><br><b>Anne P. Rasmussen</b> , CNRS, FR & Aarhus University, DK                                            |
| 11.50 - 12.10        | <i>Phase Space Manipulation and Evaporative Cooling of Ions in an Electrostatic Ion Beam Trap</i><br><b>Deepak Sharma</b> , Max Planck Institute for Nuclear Physics, Heidelberg, DE                        |
| 12.10 - 12.30        | <i>Low Energy Electron Cooling at the Cryogenic Storage Ring</i><br><b>Jonas Bechtel</b> , Max Planck Institute for Nuclear Physics, Heidelberg, DE                                                         |
| 12.30 - 13.30        | Lunch break                                                                                                                                                                                                 |
| <b>13.30 - 15.05</b> | <b>Session 6: Intermolecular processes</b> – Chair: Richard Thomas                                                                                                                                          |
| 13.30 - 14.15        | <b>Topical lecture:</b> <i>A glimpse into the world of ICD and ETMD</i><br><b>Lorenz S. Cederbaum</b> , Heidelberg University, Heidelberg, DE                                                               |
| 14.15 - 14.45        | <i>Interatomic/molecular Coulombic decay (ICD): Toward exploring vibrational ICD in hydrated anion beams</i><br><b>Ltaief Ben Ltaief</b> , Aarhus University, DK                                            |
| 14.45 - 15.05        | <i>Radiative cooling of the deprotonated cyan fluorescent protein chromophore anion</i><br><b>Mark H. Stockett</b> , Stockholm University, SE                                                               |
| <b>15.05 - 17.00</b> | <b>Poster session II</b>                                                                                                                                                                                    |

## Wednesday 18th June

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| <b>09.00 – 10.20</b> | <b>Session 7: Collisions</b> – Chair: Henning T. Schmidt                                                                                                                                      |
| 09.00 - 09.30        | <i>Ion-neutral Merged-Beams Experiments at the CSR</i><br><b>Holger Kreckel</b> , Max Planck-Institute for Nuclear Physics, Heidelberg, DE                                                    |
| 09.30 - 10.00        | <i>Fast and slow fullerene collisions at DESIREE</i><br><b>Michael Gatchell</b> , Stockholm University, SE                                                                                    |
| 10.00 – 10.20        | <i>Electron Transfer to Ar<sup>+</sup> studied with a Reaction Microscope in a Cryogenic Storage Ring</i><br><b>Felix Herrmann</b> , Max Planck Institute for Nuclear Physics, Heidelberg, DE |
| 10.20 - 11.00        | Coffee break                                                                                                                                                                                  |
| <b>11.00 - 12.40</b> | <b>Session 8: Mass spectrometry &amp; nuclear physics</b> – Chair: Robert Continetti                                                                                                          |
| 11.00 - 11.30        | <i>Facets of Electrostatic Ion Beam Traps (My life with MR-ToF devices)</i><br><b>Lutz Schweikhard</b> , University of Greifswald, DE                                                         |
| 11.30 – 12.00        | <i>Mass spectrometry and separation at ISOLDE/CERN</i><br><b>Lukas Nies</b> , European Organization for Nuclear Research, Geneva, CH                                                          |
| 12.00–12.20          | <i>Planar electrostatic ion traps for mass spectrometry</i><br><b>Dmitry Grinfeld</b> , Thermo Fisher Scientific, DE                                                                          |
| 12.20 - 12.40        | <i>High-sensitivity spectroscopy of radioactive ions within a ConeTrap</i><br><b>Daniel Bettaney</b> , University of Manchester, UK                                                           |
| 12.40 - 13.30        | Lunch break                                                                                                                                                                                   |
| <b>14.00 – 15.30</b> | <b>Lab tours – coffee by auditorium from 15.00</b>                                                                                                                                            |
| <b>15.30 – 18.00</b> | <b>Excursion: Walk to and own time at ARoS art museum</b>                                                                                                                                     |
| <b>18.00-21.00</b>   | <b>Conference dinner (ARoS)</b>                                                                                                                                                               |

## Thursday 19th June

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| <b>09.00 - 10.30</b> | <b>Session 9: Photo-induced processes &amp; spectroscopy</b> – Chair: Lars H. Andersen                                                                                                                                              |
| 09.00 - 09.30        | <i>Cold ion spectroscopy with LUNA2</i><br><b>Thomas Toft Lindkvist</b> , Aarhus University, DK                                                                                                                                     |
| 09.30 - 09.50        | <i>Towards multi-color laser action spectroscopy of highly excited <math>H^+_3</math> in the CSR</i><br><b>Lukas Berger</b> , Max Planck Institute for Nuclear Physics, Heidelberg, DE                                              |
| 09.50 - 10.10        | <i>Accurate lifetime measurement of the <math>5d^2D_{3/2}</math> metastable state of singly charged barium</i><br><b>Paul Martini</b> , Stockholm University, SE                                                                    |
| 10.10 - 10.30        | <i>Velocity Map Imaging with No Spherical Aberrations</i><br><b>Yehuda Ben Shabo</b> , Bar Ilan University, IL                                                                                                                      |
| 10.30 - 11.00        | Coffee break                                                                                                                                                                                                                        |
| <b>11.00 - 12.30</b> | <b>Session 10: Collisions</b> – Chair: Lutz Schweikhard                                                                                                                                                                             |
| 11.00 - 11.30        | <i>Electron-ion Recombination at the Cryogenic Storage Ring</i><br><b>Leonard Isberner</b> , Max Planck-Institute for Nuclear Physics, Heidelberg, DE                                                                               |
| 11.30 - 11.50        | <i>State-Selective Mutual Neutralization between <math>Ba^+</math> and <math>Au^-</math> Ions</i><br><b>Rachel Poulou</b> , Stockholm University, SE                                                                                |
| 11.50 - 12.10        | <i>Momentum Imaging of Electrons and Recoil Ions from Anion-Neutral Interactions with a Reaction Microscope in a Cryogenic Ion Storage Ring</i><br><b>Michael Schulz</b> , Max Planck Institute for Nuclear Physics, Heidelberg, DE |
| 12.10 - 12.30        | <i>A new generation of compact transportable cryogenic electrostatic storage device: Polar Mini-Ring</i><br><b>Suvasthika Indrajith</b> , Université Lyon, FR                                                                       |
| 12.30 - 13.30        | Lunch break                                                                                                                                                                                                                         |
| <b>13.30 - 15.15</b> | <b>Session 11: Related fields &amp; perspectives</b> – Chair: Klavs Hansen                                                                                                                                                          |
| 13.30 - 14.15        | <b>Topical lecture:</b> <i>The PAH Model: Current Status and Perspectives</i><br><b>Christine Joblin</b> , Institut de Recherche en Astrophysique et Planétologie, Toulouse, FR                                                     |
| 14.15 - 14.35        | <i>Probing the balance between dissociation and radiative cooling in interstellar Polycyclic Aromatic Hydrocarbon cations</i><br><b>Arun Subramani</b> , Stockholm University, SE                                                   |
| 14.35 - 14.55        | <i>Action spectroscopy and photophysics of <math>C_{11}H_9^+</math> species</i><br><b>Ana Lozano</b> , Université de Toulouse, FR                                                                                                   |
| 15.00 - 15.30        | Coffee and departure                                                                                                                                                                                                                |