

2023

Tuesday 10 October

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10.00 **Arrival, registration**

10.40 **Opening by the chair of the section AMO Herman Offerhaus**

chair : Lyuba Amitonova

10.45 **I 01 Francesca Calegari** (Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany)
„Ultrafast chiroptical switching“

11.30 **Short lectures: (Europa room)**

O 01 Grite Abma (Institute for Molecules and Materials, Radboud University, Nijmegen)
“Isomer resolved spectroscopy using universal probes”

O 02 Vincent Barbé (LaserLaB, Vrije Universiteit Amsterdam)
“Laser excitation of the $1S - 2S$ transition in singly-ionized helium”

O 03 Madhav Mohan (Eindhoven University of Technology)
“Robust control and optimal Rydberg states for neutral atom two-qubit gates”

Komal Chaudhary (ARCNL, Amsterdam)

O 04 “Optically enhancing photoacoustic signals using ultra-thin semiconductor coatings on metal surfaces”

12.30 **Lunch**

Chair: Giel Berden

14.00 **I 02 Florian Meinert** (University of Stuttgart, Germany)
“Microscopy of molecular vibrations in ion-Rydberg-atom dimers”

14.45 **Short lectures: (Europa room)**

O 05 Matteo Fiscaro (Institute of Physics, Leiden University)
“Acoustic interference of surface and bulk waves in SAW cavities”

O 06 Lara van Tetering (HFML-FELIX Laboratory, Radboud University, Nijmegen)
“Structural characterization of mobility-selected ions”

15.15 **Coffee/tea break (attach posters)**

15.45 **Short lectures: (Europa room)**

O 07 Premjith Thekkepatt (van der Waals Zeeman Institute, University of Amsterdam)
“Towards open-shell weakly bound RbSr fermionic molecules”

O 08 Sara Marzban (QuTech and Kavli Institute of Nanoscience, Delft University of Technology)
“Frequency tunable, cavity-enhanced single erbium quantum emitter in the telecom band”

O 09 Kevin Murzyn (ARCNL, Amsterdam)
“High-harmonic generation far below Abbe’s diffraction limit”

O 10 Marnix Vreugdenhil (Nanophotonics, Utrecht University)
“Subsurface laser induced damage in silicon carbide”

16.45 **Poster presentations (odd numbers)**

18.00 **Dinner (restaurant)**

19.15 **Poster presentations (even numbers)**

21.15 **chair: Kjeld Eikema**

I 03 Wim Ubachs (LaserLaB, Vrije Universiteit Amsterdam)
“Searches for new physics via precision measurements of hydrogen molecules”

2023

Wednesday 11 October

08.00 Breakfast (restaurant, please remove the luggage from your room)

chair : Sylvania Pereira

08.45 **I 04 Femius Koenderink** (AMOLF, Amsterdam)
“Shrinking light to the scale of a molecule and keeping it there for hundreds of optical cycles”

09.30 Short talks (Europa room)

O 11 Vashist Ramesh (AMOLF, Amsterdam)

“Arcsine laws and weak ergodicity breaking in optical resonators”

O 12 Thomas Kotte (Optic Research Group, Delft University of Technology)

“Highly efficient transmission diffraction grating through the use of composite elements”

O 13 Rodrigo Gonzales Escudero (LaserLaB, Vrije Universiteit Amsterdam)

“Ultrastable optical frequency distribution to multiple users and a virtual time scale based on a network of atomic clocks”

O 14 Bart Schellenberg (van Swinderen Institute, University of Groningen)

“Real-time classification of optically levitated nanoparticles”

10.30 Coffee/tea break

chair : Steven Hoekstra

11.00 **I 05 Steven Jones** (van Swinderen Institute, University of Groningen)
“Comparing hydrogen and antihydrogen”

11.45 Short talks (Europa room)

O 15 Coen Smeets (Eindhoven University of Technology)

“Ponderomotive bunching of a relativistic electron beam for a super radiant Thomson source”

O 16 Francesco Verdelli (DIFFER, Eindhoven)

“Surface lattice resonances for polaritonic chemistry”

O 17 Robert de Keijzer (Eindhoven University of Technology)

“Recapture probability for anti-trapped Rydberg states in optical tweezers”

O 18 Laura Dreissen (LaserLaB, Vrije Universiteit Amsterdam)

“Towards searches for new physics with entangled Ba⁺ ions”

12.45 Lunch

chair : Herman Offerhaus

13.55 Presentation winner poster award

Chair: Klaasjan van Druten

O 19 Fenling Zhang (ARCNL, Amsterdam)

“Compression of ultrafast mJ-level pulses via loose focusing in a gas cell”

O 20 Janko Nauta (Swansea University, Wales, United Kingdom)

“Gravitational and spectroscopic studies of antihydrogen in the ALPHA experiment”

14.30 **I 06 Lauriane Chomaz** (Quantum Fluids, University of Heidelberg, Germany)

“Exotic many-body states in dipolar quantum Bose gases of magnetic atoms”

15.20 Finish