

CINSaT SPRING COLLOQUIUM 2026

26.02. – 27.02.2026

(PARKHOTEL GREEN GARDEN, AM KURPARK 10, 36251 BAD HERSFELD)

Thursday, February 26th

Opening of the Event (10:00 – 10:20)

10:00 **Prof. Dr. Claudia Backes – Speaker of CINSaT**
Opening Speech

10:10 **Sina Dörr**
Impressions of the first “Nanotage”-Event

Session I (10:20 – 11:45)

Nanomaterial

Chair: C. Backes

10:20 **Prof. Dr. Claudia Backes (Physical Chemistry of Nanomaterials)**
Overview Focal Point Nanomaterials

10:30 **Dr. Mohammed Tahir Abba (Mechanical Behavior of Materials)**
Towards Nanoindentation at High Strain Rates

10:50 Break (15 minutes)

11:05 **Sina Dörr (Physical Chemistry of Nanomaterials)**
Challenges of Liquid-Liquid-Interface-Deposition (LLID) of 2D Materials

11:25 **Nico Kubetschek (Surface Physics)**
Scanning Tunneling Manipulation: From Global Chirality Switching to Molecular Writing

12:00 Lunch (1 h 15 minutes)

Session II (13:15 – 14:25)

Chiral Systems

Chair: P. Demekhin

13:15 **Prof. Dr. Philipp Demekhin (Theoretical Atomic and Molecular Physics)**
Extreme light for sensing and driving molecular chirality (ELCH): An Introduction in the Third Funding Period 2026-2029

13:25 **Daniel Haubenreisser (Theoretical Atomic and Molecular Physics)**
Chiral Recognition with High-Energy Photo- and Compton Electrons

13:45 **Dr. Andreas Hans (Spectroscopy and Physics with Synchrotron Radiation)**

Chirality in intermolecular energy transfer

14:05 **Jan Jakob (Laboratory Astrophysics)**

Towards Infrared Three-Wave Mixing in Cold Molecular Beams: Comb-Stabilized IR–UV Double Resonance and Recent Advances in Spectroscopy of Larger Molecules

14:25 Break (10 minutes)

Session III (14:35 – 15:15)

Multiscale Bioimaging

Chair: TBA

14:35 **Kamal Heidary (Development Genetics)**

Dynamic Focus Control for Multi-View Light-Sheet Microscopy of Drosophila Embryos

14:55 **Mauro Forlino (Theoretical Solid-State and Ultrafast Physics)**

Post-translational feedback loop mechanism for circadian clocks

Session IV (15:15 – 16:00)

Open Discussion on new Focal Points

Chair: C. Backes

16:15 Group Photo (ca. 15 min) – In front of hotel!

Social Event (16:30 – 18:00) – Strolling through Bad Hersfeld (ca. 5 km)

Bring good walking shoes and a raincoat!

18:00 Dinner

Poster Session (open end)

20:00 **All Contributors**

Presentation of Poster Contributions and Discussions

Friday, February 27th

07:00 Breakfast and Check-Out (2 h)

Session V (09:00 – 10:00)

CINSaT Application Talk

09:00 **Prof. Dr. Marcel Mudrich (Molecular Quantum Physics)**
Helium nanodroplets -- the ideal cryo-matrix for spectroscopy and imaging of tailored complexes?

10:00 Break (15 minutes)

Session VI (10:15 – 11:25)

3D Nanostructures

Chair: H. Hillmer

10:15 **Prof. Dr. Hartmut Hillmer (Technological Electronics)**

Overview Focal Point 3D Nanostructures

10:25 **Omar Elsheikh (Extreme Light for Nanostructures)**

Femtosecond Laser-Induced Breakdown Spectroscopy for Film Analysis of Cu-Coated Polymer

10:45 **Dr. Kamrul Hasan (Technological Electronics)**

TANDEM Micromirror for LIDAR Application

11:05 **Dr. Hanif Mohammadi (Technological Physics)**

Defect-Filtering Strategies for Integrating Long-Wavelength QDs on Silicon

Session VII (11:25 – 12:15)

Quantum Technology

Chair: K. Singer

11:25 **Prof. Dr. Kilian Singer (Light-Matter-Interaction)**

Overview Focal Point Quantum Technology

11:35 **Moritz Göb (Light-Matter-Interaction)**

Eigenmodes of ions in a tapered potential

11:55 **Miles DeWitt (Light-Matter-Interaction)**

Verifying the excitation steps for chiral Rydberg states using field ionization

12:15 Lunch (1h 15 minutes)

Session VIII (13:30 – 14:20)

Photonics

Chair: P. Lehmann

13:30 **Prof. Dr. Peter Lehmann (Measurement Technology)**

Overview Focal Point Photonics

13:40 **Lucie Hüser (Measurement Technology)**
Working principles in microsphere-assisted interference microscopy

14:00 **Dr. Meraj Mustafa (Quantum Nano Photonics)**
Nanophotonic Structures for Telecom Quantum Light Sources

End of Event

14:20 **Prof. Dr. Claudia Backes – Speaker of CINSaT**
Closing Speech