

CINSaT SPRING COLLOQUIUM 2017

Wednesday, February 15th 2017

Opening of the Event

09:30 **J. P. Reithmaier (Head of CINSaT, Technische Physik)**
Opening speech

Session I (09:40 – 10:45)

Collaboration CINSaT and Senckenberg

Chair: J. P. Reithmaier

09:40 **J. P. Reithmaier (Head of CINSaT, Technische Physik)**
Introduction to CINSaT

10:00 **V. Mosbrugger (Director General of Senckenberg)**
Introduction to Senckenberg

10:45 Break (15 minutes)

Session II (11:00 – 14:30)

Presentation of applicants for CINSaT membership

Chair: J. P. Reithmaier

11:00 **C. Koch (Quantum Dynamics and Control)**
Quantum control for quantum technologies: Charting the design landscape of superconducting qubits

11:45 **A. Müller (Developmental Genetics)**
Control of cell polarity by cell signaling in Drosophila

12:30 Lunch (1h 15 minutes)

13:45 **P. Lehmann (Measurement Technology)**
Optical interferometry with applications in nanotechnology

Session III (14:40 – 15:40)

Chiral Systems

Chair: C. Koch, B. Witzigmann

- 14:30 **C. Koch (Quantum Dynamics and Control)**
Introduction into CINSaT main topic “Chiral Systems”, Future main topic “SFB”
- 15:00 **A. Kastner (Femtosecond Spectroscopy and Ultrafast Laser Control)**
Wavelength dependence of Photoelectron Circular Dichroism in Femtosecond Multiphoton Ionization
- 15:20 **E. Goetz (Quantum Dynamics and Control)**
Theoretical description of circular dichroism in photoelectron angular distributions of randomly oriented chiral molecules after multi-photon photoionization
- 15:40 **Break (15 minutes)**

Session IV (15:55 – 17:45)

Future main topics

Chair: B. Witzigmann

- 15:55 **R. Schaffrath (Microbiology)**
Topic related to Funding line “Future”
- 16:15 **T. Niendorf (Institute of Material Technology)**
Process integrated fabrication of tribologically stresses surfaces
- 16:35 **B. Middendorf (Materials of Construction and Building Chemistry)**
Topic related to Funding line “Future”
- 16:55 Break (15 minutes)**
- 17:05 **D. Herberth (Laboratory Astrophysics)**
The Chemical Evolution of Cosmic Matter – From Molecules to Nano-Grains
- 17:25 **M. Stengl (Animal Physiology)**
Topic related to Funding line “Graduate College”
- 17:45 Dinner (1 h)**

Poster Session (open end)

- 18:45 **All Contributors**
Presentation of Poster Contributions and Discussions

Thursday, February 16th 2017

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

09:00 *Group Photo (15 Minutes)*

Session V (09:15 –11:05)

Three-dimensional Nanostructures

Chair: H. Hillmer

09:15 **H. Hillmer (Technological Electronics)**

Introduction into CINSaT main topic “Three-dimensional Nanostructures”

09:30 **U.-M. Ha (Technological Electronics)**

Establishing a guest host system for nanoimprinted particles

09:50 **A. Tomita (Functional Thin Films and Physics with Synchrotron Radiation)**

Characterization and application of functionalized particles with magnetic properties

10:10 **M. Grimann (Macromolecular Chemistry and Molecular Materials)**

Bicontinuous Morphologies in Ternary Blends of Molecular Glasses

10:30 *Break (15 minutes)*

10:45 **B. Zielinski (Femtosecond Spectroscopy and Ultrafast Laser Control)**

Temporal Airy pulses control cell poration

Session VI (11:05 –12:20)

Photonics

Chair: T. Kusserow

11:05 **T. Kusserow (Nanophotonics)**

Introduction into CINSaT main topic “Photonics”

11:20 **F. Römer (Computational Electronics and Photonics)**

Gallium nitride LEDs: multiple quantum-well transport and efficiency

11:40 **T. Winkler (Femtosecond Spectroscopy and Ultrafast Laser Control)**

Laser amplification in excited dielectrics

11:40 **A. Kors (Technische Physik)**

InP-based photonic crystal microcavities embedded with InAs quantum dots for telecom wavelengths

12:20 *Lunch (1h 10 minutes)*

Session VII (13:30 –15:20)

Nanoscience in Art, Engineering and Natural Sciences

Chair: T. Niendorf

- 13:30 **B. Middendorf (Materials of Construction and Building Chemistry)**
Introduction into CINSaT main topic “Nanoscience in Art, Engineering and Natural Sciences”
- 13:45 **Salah Uddin (Materials of Construction and Building Chemistry)**
Atomistic study of silicate polymerization during cement hydration
- 14:05 **B. Bauerhenne (Solids and Ultrafastphysics)**
Developing of classical interatomic potentials to describe femtosecond laser excitations

14:25 Break (15 minutes)

- 14:40 **J. Arend (Materials of Construction and Building Chemistry)**
Environment depending Superplasticizer-Adsorption - A fluorescence microscopic approach
- 15:00 **T. Zier (Solids and Ultrafastphysics)**
Femtosecond-laser induced nonthermal effects in thin silicon films

End of the Event

- 15:20 **B. Witzigmann (Member of the CINSaT Executive Board, Computational Electronics and Photonics)**
End speech