UNIKASSEL VERSITÄT

CINSaT Center for Interdisciplinary Nanostructure Science and Technology

CINSaT SPRING COLLOQUIUM 2019

Thursday, March 7th 2019

Opening of the Event

10:00 **J. P. Reithmaier (Head of CINSaT, Technological Physics)**
Opening speech

Session I (10:10 – 11:40)
Biosensing **Chair**: A. Müller

10:10 **A. Müller (Developmental Genetics)**
Current status of CINSaT main topic "Biosensing"

10:25 **M. Aakhte (Developmental Genetics)**
High resolution whole functional imaging of Drosophila embryo

10:45 **H. Hawer (Microbiology)**
Importance of Fe-S cluster enzyme Dph1-Dph2 for translational accuracy and competitive cell growth in yeast

11:05 Break (15 minutes)

11:20 **M. Horn (Macromolecular Chemistry and Molecular Materials)**
Enzymatic phosphorylation of chitosan nanoparticles

Sub-session Biosensing: Grad School (11:40 – 12:00)

11:40 **M. Stengl (Animal Physiology)**
Clocks on different time scales

Session II (12:00 – 14:50)

Presentation of applicants for CINSaT membership **Chair**: J.P. Reithmaier

12:00 **G. Mayer (Zoology)**
What can we learn from velvet worms and water bears?

12:45 Lunch (1h 20 minutes)

14:05 **A. Brückner-Foit (Quality and Reliability Group, Institute for Materials Engineering)**
Microstructural assessment of the deformation and failure behavior of electric sheet material

Session III (14:50 – 15:50)

SP Meeting **Chair**: Main Topic Speakers

Individual Main Topic Sessions
The main topic sessions simultaneously take place in different rooms

15:50 Break (10 minutes)

Hiking Tour with all participants (16:00 – 18:00)

18:15 Dinner (1 h 15 minutes)

Poster Session (open end)

19:30 **All Contributors**
Presentation of Poster Contributions and Discussions

Friday, March 8th 2019

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

09:00 Group Photo (15 Minutes)

Session IV (09:15 – 11:00)
Three-dimensional Nanostructures **Chair**: H. Hillmer

09:15 **H. Hillmer (Technological Electronics)**
Current status of CINSaT main topic "Three-dimensional Nanostructures"

09:35 **S. Bagatur (Macromolecular Chemistry and Molecular Materials)**
Two- and Three-Dimensional Photoinduced Nanostructuring in Thin Azo Layers

09:55 **U.-M. Ha and B. Kaban (Technological Electronics)**
Fabrication of multifunctional anisotropically shaped hybrid particles

10:25 Break (15 minutes)

10:40 **F. Herberg (Biochemistry)**
Current Status of the CRC application „TESLA"

Session V (11:00 – 11:35)
Nanoscience in Art, Engineering and Natural Sciences **Chair**: T. Middendorf

11:00 **B. Middendorf (Materials of Construction and Building Chemistry)**
Current status of CINSaT main topic "Nanoscience in Art, Engineering and Natural Sciences"

11:15 **A. Hassanien (Femtosecond Spectroscopy and Ultrafast Laser Control)**
Structural Dynamics of TMD 2D Materials Studied by Ultrafast Electron Diffraction

11:35 Break (15 minutes)

Session VI (11:50 – 12:45)
Photonics **Chair**: T. Kusserow

11:50 **T. Kusserow (Nanophotonics)**
Current status of CINSaT main topic "Photonics"

12:05 **J. Heupel (Technological Physics)**
Fabrication of photonic crystals based on planarized nanocrystalline diamond films

12:25 **F. Römer (Computational Electronics and Photonics)**
Finite Element based Electromagnetic Modeling of Nanophotonic Devices

12:45 Lunch (1h 20 minutes)

Session VII (14:05 – 15:00)
Quantum Technology **Chair**: K. Singer

14:05 **K. Singer (Light-Matter-Interaction)**
Current status and overview of CINSaT main topic "Quantum Technology"

14:20 **J.P. Reithmaier (Technological Physics)**
New LOEWE focused research project "SMolBits"

14:40 **D. Wang (Light-Matter-Interaction)**
Turning an Organic Molecule into a Coherent Two-Level system

15:00 Break (15 minutes)

Session VIII (15:15 – 16:10)
Chiral Systems **Chair**: T. Baumert

15:15 **T. Baumert (Femtosecond Spectroscopy and Ultrafast Laser Control)**
Current status and overview of CINSaT main topic "Chiral Systems"

15:30 **M. Leibscher (Quantum Dynamics and Control)**
Principles of enantio-selective excitation of chiral molecules

15:50 **I. Vidanovic (Chemical Hybrid Materials)**
Terpene based chiral systems

End of the Event

16:10 **J. P. Reithmaier (Head of CINSaT, Technological Physics)**
End speech