

CINSaT SPRING COLLOQUIUM 2020

Thursday, March 5th 2020

Opening of the Event

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

10:10 **N. Felgen (CINSaT)**
Administrative and Organizational Issues

Session I (10:30 – 11:30)

3-dimensional Nanostructures

Chair: H. Hillmer

10:30 **H. Hillmer (Technological Electronics)**
Current status of CINSaT focal point "3-dimensional Nanostructures"

10:50 **C. Arbeitmann (Condensed Matter Physics and Ultrafast Phenomena)**
Antibiofilm Nanopatterns for Medical Devices

11:10 **T. Gutmann (Macromolecular Chemistry and Molecular Materials)**
Surface structure analysis of nanomaterials by solid-state dynamic nuclear polarization

11:30 Break (15 minutes)

Session II (11:45 – 12:55)

Photonics

Chair: P. Lehmann

11:45 **P. Lehmann (Measurement Technology)**
Current status of CINSaT focal point "Photonics"

12:05 **L. Hüser (Measurement Technology)**
*Resolution enhancement in 3D topography measurement with microsphere as-
sisted interferometry microscopy*

12:25 **A. Becker (Technological Physics)**
Tutorial: Quantum Dot Distributed Feedback Lasers

12:55 Lunch (1h 10 minutes)

Session III (14:05 – 14:40)

Poster Flash Presentations I

Posters 1- 26

Session IV (14:40 – 15.20)

Nanostructures in Natural Sciences, Engineering Sciences and the Arts Chair: T. Niendorf

14:40 **P. Plettenberg (Condensed Matter Physics and Ultrafast Phenomena)**
High-Dimensional Machine Learning Potential for Laser-Excited Materials

15:00 **C. Sobrero (Metals Group)**
Texture development and their influence on superelasticity in Fe-Ni-Co-Al-Ti alloy

15:20 Break (10 minutes)

Session V (15:30 – 16:05)

Poster Flash Presentations II

Posters 27-52

16:10 Group Photo (ca. 15 min)

Hiking Tour with all participants (16:30 – 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 6th 2020

07:00 Breakfast and Check-Out (2:15 h)

Session VI (09:15 –11:00)

Multiscale Bioimaging

Chair: A. Müller

- 09:15 **L. Chandran (Developmental Genetics)**
Functional analysis of Src tyrosine kinase in embryonic and germ-line development
- 09:35 **S. Neupert (Animal Physiology)**
Molecular imaging by single cell mass spectrometry
- 09:55 **P. Rojas (Condensed Matter Physics and Ultrafast Phenomena)**
Minimal Models for Circadian Clocks

10:15 Break (15 minutes)

- 10:30 **R. Klassen (Microbiology)**
Bioimaging of dynamic changes in yeast acetyl-CoA carboxylase and evaluation of novel regulators

Session IV (10:50 – 11:50)

Chiral Systems I

Chair: R. Pietschnig

- 10:50 **T. Ring (Femtosecond and Ultrafast Lasercontrol)**
Controlling and optimising the circular dichroism in the ion yield of chiral molecules using ultrashort laser pulses in the IR, visible and UV
- 11:10 **D. Wang (Light-Matter-Interaction)**
Examine chirality with light forces
- 11:30 **E. Kutscher (Theoretical Atomic and Molecular Physics)**
Photoelectron Circular Dichroism of Fenchone in different multiphoton ionization regimes

11:50 Break (15 minutes)

Session V (12:05 –12:55)

Quantum Technology

Chair: K. Singer

- 12:05 **K. Singer (Light-Matter-Interaction)**
Current status and overview of CINSaT focal point "Quantum Technology"

12:25 **M. Gerstel (Technological Physics)**
Low temperature optical characterization of lanthanide complexes.

12:45 Lunch (1h 20 minutes)

Session VII (14:05 –15:30)

Individual Focal Point Sessions

Chair: Focal Point Speakers

End of the Event

15:30 **J. P. Reithmaier (Head of CINSaT, Technological Physics)**
End speech