

# CINSaT SPRING COLLOQUIUM 2021

## POSTER FLASH SESSION AND POSTER PROGRAM

Thursday, March 4<sup>th</sup> 2021

### Poster Flash Session I

- 1 **Naureen Ahmed (Technological Electronics)**  
*3D nanostructured Fabry-Pérot Arrays: Comparison of experimental and simulated spectral linewidths.*
- 2 **Sapida Akhundzada (Functional thin Films and Physics with Synchrotron Radiation)**  
*Asymmetric magnetization reversal processes in nano stripes using Kerr microscopy*
- 3 **Mohanad Alkaales and Ranbir Kaur (Technological Physics)**  
*Growth and characterization of telecom wavelength InP-based quantum dot structures*
- 4 **Stefan Aull (Light-Matter-Interaction)**  
*Monolithic integration of InP-based QD laser structures on Si substrates*
- 5 **Ramasubramanian Balasubramanian (Technological Physics)**  
*Monolithic integration of InP-based QD laser structures on Si substrates*
- 6 **Othmane Benhayoun (Condensed Matter Physics and Ultrafast Phenomena)**  
*Theory for heating of metals assisted by Surface Plasmon Polaritons*
- 7 **Manika Bhardwaj (Light-Matter-Interaction)**  
*Spectroscopy on rare earth molecular ions*
- 8 **Dana Bloß (Functional thin Films and Physics with Synchrotron Radiation)**  
*X-ray-induced photochemistry of solvated metal ions.*
- 9 **Ramela Ciobotea (Femtosecond and Ultrafast Laser Control Group)**  
*Identifying malignant tissue using LIBS and ANN*
- 10 **Sagnik Das, Hendrike Braun-Knie and Jayanta Ghosh (Femtosecond and Ultrafast Laser Control Group)**  
*Intensity and chirp dependence of the circular dichroism in ion yield of 3 MCP measured with femtosecond laser pulses*
- 11 **Bo Deng (Light-Matter-Interaction)**  
*Trapped ions in tapered Paul trap*
- 12 **Rishab Dev (Computational Electronics and Photonics)**  
*Implementation of a Newton propagator for the numerical solution of the Liouville-von-Neumann equation*
- 13 **Anna Engelhardt (Metals Group)**  
*Digitalization in material science - Insights into "DigiWerk"*

- 14 **Miriam Gerstel and Muhammad Shaharukh (Technological Physics)**  
*Characterizations of lanthanide complexes and growth of photonic structures*
- 15 **Mirali Gheibi and Jayanta Ghosh (Femtosecond and Ultrafast Laser Control Group)**  
*Observation of long-lived electronic coherence in lanthanide complexes at room temperature*
- 16 **Soenke Grüßing (Computational Electronics and Photonics)**  
*Fano Resonant Antenna-Waveguide Coupling with doped Ge on Si Ridge Structures in the low THz regime*
- 17 **Christine Heume, Eireen Käkel and Burhan Kaban (Technological Electronics)**  
*Multifunctional Anisotropically Shaped Hybrid Particles*
- 18 **Christian Janzen (Functional thin Films and Physics with Synchrotron Radiation)**  
*Topographic and magnetic characterization of 3D organic/metallic hybrid thin films*
- 19 **Vinaykrishna Joshi (Technological Physics)**  
*Epitaxial Growth of InP-based 1.3  $\mu\text{m}$  and 1.55  $\mu\text{m}$  InAs Quantum Dots*
- 20 **Matin Kaufmann (Laboratory Astrophysics)**  
*Multi-photon excitation as a scheme for precision spectroscopy*

#### Poster Flash Session II

- 21 **Ingo Köhne (Chemical Hybrid Materials)**  
*Functionalised Phosphonate Esters in Lanthanide Model Complexes and <sup>R</sup>POSS-supported Lanthanide Coordination*
- 22 **Eric Kutscher (Theoretical Atom- and Moleculephysics)**  
*Photoelectron circular dichroism of fenchone induced by broadband laser pulses*
- 23 **Maximilian Merkel (Functional thin Films and Physics with Synchrotron Radiation)**  
*Viscous magnetization decrease in first-order reversal curves induced by rotatable magnetic anisotropy in polycrystalline exchange-biased bilayers*
- 24 **Daniel Merker (Technological Physics)**  
*Towards diamond platforms for biochemical measurements of time-resolved clock cell signaling*
- 25 **Paul Mertin (Computational Electronics and Photonics)**  
*Numerical Analysis of Coupled Quantum Systems*
- 26 **Tobias Müller (Theory of low-dimensional and nanostructured materials)**  
*A new theoretical approach to attractive pairing-interactions in low dimensional systems*
- 27 **Nikolay Novikovskiy (Theoretical Atom- and Moleculephysics)**  
*Circular dichroism in the photoionization and decay spectra of spatially-oriented chiral molecules*
- 28 **Tanzila Nurjahan (Technological Electronics)**  
*Study of nanoscale SiO<sub>2</sub> dielectric layers for Smart Glass: leakage current measurements, modeling of electron transport mechanisms in insulators, comparison of experiments and theoretical models*

- 29 **Jenny Plath (Animal Physiology)**  
*Multiscale electrophysiological analysis of the circadian clock, sensory input and locomotor output in the Madeira cockroach *Rhyparobia maderae**
- 30 **Meike Reginka (Functional thin Films and Physics with Synchrotron Radiation)**  
*Magnetic textures in 3D hollow hemispheres*
- 31 **Pablo Rojas and Claudia Arbeitmann (Condensed Matter Physics and Ultrafast Phenomena)**  
*Electric fields and SARS-CoV-2*
- 32 **Muhammad Shaharukh and Özlem Urcan (Technological Physics)**  
*Processing of GaP-based photonic crystal structures for integration of lanthanide molecules*
- 33 **Gunnar Stegmann (Theory of low-dimensional and nanostructured materials)**  
*Theory of the ultrafast magnetization and energy flow triggered by femtosecond-laser excitation of transition-metal compounds*
- 34 **Jan Thieme (Light-Matter-Interaction)**  
*Quantum control of single NV-centers in diamond*
- 35 **Fang Tianyu (Light-Matter-Interaction)**  
*Examine molecular chirality with optical forces*
- 36 **Lukas Wolfram (Macromolecular Chemistry and Molecular Materials)**  
*Wrinkled Functional Hybrid Multilayers Between Order and Disorder*
- 37 **Malwin Xibraku (Condensed Matter Physics and Ultrafast Phenomena)**  
*Analytic interatomic potential for Carbon with ab-initio accuracy: application to laser excited nanoparticles*
- 38 **Xin Xu (Measurement Technology)**  
*Profilometry of metal additive manufactured rough surfaces by applying Focus Variation Microscopy*
- 39 **Jonas Ziebarth (Macromolecular Chemistry and Molecular Materials)**  
*Is the Diatom Sex Clock a Clock?*

**Notes**

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