

Hanse-Wissenschaftskolleg  
Institute for Advanced Study

# Summerschool Ultrafast Nanooptics

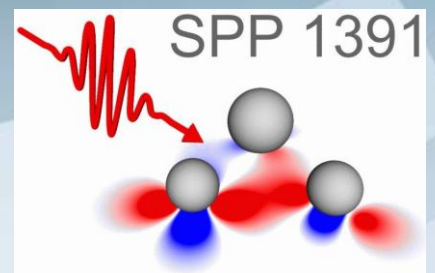
Delmenhorst, September 7 – 9, 2011

**Organizer:**  
**Prof. Dr. Christoph Lienau**  
Carl von Ossietzky Universität Oldenburg

<http://www.ultrafast-nanooptics.org/event/items/summerschool-ultrafast-nanooptics.html>

**Venue:**

Hanse-Wissenschaftskolleg  
Institute for Advanced Study  
Lehmkuhlenbusch 4  
27753 Delmenhorst  
Germany  
[www.h-w-k.de](http://www.h-w-k.de)



Program

## Sommerschule SPP 1391

### Scientific Programme

#### Wednesday, Sep 7.

**12.00 – 13.00 Lunch**

13.00 – 13.10 Opening

13.10 – 13.55 A. Schindlmayr, U Paderborn, "Density functional theory and applications to nanostructures"

13.55 - 14.40 K. Busch, U Karlsruhe, "Modelling the Ultrafast Optical Response of Metallic Nanostructures"

**14.40 – 15.10 Coffee break**

15.10 – 15.55 M. Richter, TU Berlin, "Introduction to Maxwell Equations and Density Matrix Theory"

16.00 – 18.30 Poster Session

**18.30 – 20.00 Dinner**

#### Thursday, Sep. 8

9.00 – 9.30 C. Strüwer, U Bielefeld, "Two-dimensional optical nanoscopy"

9.30 – 9.50 M. Silies, U Oldenburg, "Observing the localization of light in space and time"

9.50 – 10.10 S. Falke, U Oldenburg, "Coherent electron transfer dynamics in prototypical photovoltaic systems"

10.10 – 10.40 F. Schlosser, TU Berlin, "Ultrafast nonlinear spectroscopy with spatially confined fields"

**10.40 – 11.10 Coffee break**

11.10 – 11.40 E. Sternemann, TU Dortmund, "Optically induced quantum interference in semiconductors; applications for field-resolved spectroscopy"

11.40 – 12.00 W. Wang, U Oldenburg, "Exciton-plasmon coupling in hybrid nanostructures"

12.00 – 12.30 B Metzger, "Widely tunable Gaussian-shaped sub-20fs laser source for nonlinear nanoplasmonic spectroscopy"

**12.30 – 13.30 Lunch**

13.30 – 14.00 S. Bin Hasan, U Jena, "Modal Phase Matching for SHG in Plasmonic Slot Waveguides."

14.00 – 14.20 D. Sadiq, U Oldenburg, "Adiabatic nanofocusing of ultrashort light pulses"

14.20 – 14.50 T. Leisner, U Kiel, "Surface plasmon polariton emission prompted by organic nanofibers on thin gold films"

**15.00 – 19.00 Conference Excursion**

**19.00 – 22.00 Conference Dinner, Ratskeller Bremen**

## Friday, Sep. 9

9.00 – 9.45 G. Steinmeyer, Max-Born-Institut, “Femtosecond pulse characterization for resolving highly dynamical processes in ultrafast nano-optics”

9.45 – 10.30 U. Morgner, U Hannover, “Generation of few-cycle laser pulses”

### **10.30 – 11.00 Coffee break**

11.00 – 11.45 P. Nürnberg, U Würzburg, “Ultrafast two-dimensional spectroscopy and its applications”

11.45 – 12.30 H. van Driel, U Toronto, “Coherence Control of Semiconductors”

### **12.30 – 13.30 Lunch**

13.30 Departure

## **Poster Session**

1. M. Birlo, U Bielefeld, Nanolocalization of time-reversed coherent optical fields in random scattering media”
2. M. Brandstetter, MPI Stuttgart, “Pump-probe apertureless near field microscopy - a tool for time resolved Nanooptics”
3. Y. Grynko, U Paderborn, “Simulation of second harmonic generation from split ring resonators”
4. K. Hinrichs, U Ulm, “Spatio-temporal control of electron-induced processes in metal cluster nanostructures: A new experimental setup”
5. C. Kramer, U Würzburg, “Coherent Nano-Control and Two-Dimensional Nano-Spectroscopy”
6. V. Mondes, FU Berlin, “Chemical prepared metal nanoparticles and their arrangement in ordered structures for an efficient field enhancement”
7. B. Schaaf, TU Kaiserslautern, “Femtosecond Plasmonic Transport in Metal Nanostructures Investigated by SNOM and PEEM”
8. C. Schwarz, U Würzburg, “Advanced pulse shaper design for complete vector-field control using a common dual-layer LC-SLM”
9. S. Wall, U Duisburg-Essen, “Plasmon coupling, propagation, and interference using femtosecond PEEM”
10. M. Wand, U Paderborn, “Simulation of the Quantum Vlasov equation for metallic nanostructures”.