

KIDS TALK

“Ultrafast Dynamics of Metal Complexes: Building and Testing a Femtosecond Spectrometer”

Speaker: Florian Bäppler, AG Diller

Abstract: Metal complexes are a class of molecules which offer a wide range of useful applications, be it in OLEDs for monitors, catalysts, organic solar cells or molecular storage devices.

In order to investigate the primary dynamics of a metal complex after photoexcitation, we use femtosecond laser pulses to perform pump-probe spectroscopy. So far, we have been able to investigate transparent samples (films and solutions). The aim of my diploma thesis was to build a femtosecond spectrometer to investigate solid, non-transparent samples, such as Spin-Crossover crystals.

During the talk, the basics of our measuring technique will be explained. Some fundamentals about nonlinear optics and femtosecond lasers, as well as a physicist-friendly introduction to metal complexes will be given. Then, we will see how we can use this knowledge to build a femtosecond transient reflectivity spectrometer, and have a look at first successful tests.

When: Friday, May 29th 2015, **10:00 am**

Where: Room 46-387/388

All undergraduate and graduate students as well as postdocs are welcome and encouraged to join our discussion!

***** COFFEE, TEA AND COOKIES WILL BE SERVED *****

For questions, comments or suggestions: vollmar@rhrk.uni-kl.de

