

**E i n l a d u n g**  
zur Verleihung des Loschmidt-Preises 2011  
der Chemisch-Physikalischen Gesellschaft  
an Dr. Alexandra Nemeth und Dr. Wolfgang Lechner  
am  
Dienstag, 24. Jänner 2012, um 17:30 Uhr

**Ort: Lise-Meitner-Hörsaal, Universität Wien, Fakultät für Physik  
1090 Wien, Strudlhofgasse 4/Boltzmannngasse 5, 1. Stock**

*Treppenfrierer Zugang: Boltzmannngasse 5, Lift, 1. Stock rechts über den Gang zum Hintereingang des Hörsaals*

**sowie zu den Preisvorträgen:**

**Dr. Alexandra Nemeth**

**"Exploring the potential of two-dimensional electronic spectroscopy"**

Multi-dimensional ultrafast spectroscopies allow to study the structure and dynamics of atomic and molecular systems on femtosecond and picosecond timescales. The versatility and significance of two-dimensional electronic spectroscopy relies on the gain of additional information obtained by spreading the spectra into two frequency dimensions. In this talk I will present applications of two-dimensional electronic spectroscopy to study the electronic and vibronic dynamics of molecular systems of varying complexity. Effects of vibronic wave packets, line-shape dynamics, exciton dynamics, and pathways and timescales of energy transfer will be discussed."

**Dr. Wolfgang Lechner**

**"Nucleation and Defect Interactions in Colloidal Suspensions"**

In my thesis I have studied two aspects of colloidal suspensions: the liquid-to-solid transition and the dynamics of defects in two dimensional crystals. In this talk I will give an overview of the results on both topics with a focus on the recent developments that evolved from my thesis. In particular, based on methods that I partially developed during my PhD for the studies of nucleation, I was able to identify order parameters that enhance the description of the freezing transition beyond the classical nucleation theory. The study of the dynamics of defects in two dimensional crystals triggered several research projects that I am currently working. I will give an outlook on my further plans and ideas to study these systems.

**Im Anschluss an die Veranstaltung bittet die Chemisch-Physikalische Gesellschaft  
zu einem kleinen Buffet**

Mit freundlicher Unterstützung der Kulturabteilung der Stadt Wien -  
Wissenschafts- und Forschungsförderung

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