

**Prof. Dr. S. Hollands**

**Prof. Dr. S.G. Mayr**



Sächsische Forschergruppe FOR 877

**UNIVERSITÄT LEIPZIG**

**Fakultät für Physik und Geowissenschaften**

# Physik-Kolloquium

**Dienstag, den 09.06.2015, 16.00 Uhr**

**Prof. Hao Yan**

Department of Chemistry and Biochemistry & The Biodesign Institute,  
Arizona State University Tempe, AZ

## **Designer DNA Architectures for Programmable Self-assembly**

The central task of nanotechnology is to control motions and organize matter with nanometer precision. To achieve this, scientists have investigated a large variety of materials including inorganic materials, organic molecules, and biological polymers as well as different methods that can be sorted into so-called "bottom-up" and "top-down" approaches. Among all of the remarkable achievements made, the success of DNA self-assembly in building programmable nanopatterns has attracted broad attention. In this talk I will present our efforts in using DNA as an information-coding polymer to program and construct DNA nano-architectures with complex geometrical features. Use of designer DNA architectures as molecular sensor, actuator and scaffolds will also be discussed.

**Ort: Hörsaal für Theoretische Physik, Linnéstraße 5**

**Alle Teilnehmer sind ab 15.30 Uhr zu Kaffee vor dem Hörsaal eingeladen.**