

Platform: **Theoretical Chemistry Colloquium**  
Nano-Energy

**May 12, 2015 (Tue), 16:00-17:00**

**RCMS, 2<sup>nd</sup> floor, Chemistry Gallery**

# **Understanding and Designing Heterogeneous Catalysts from First Principles**



**Prof. Dr. Andreas Heyden**

Associate Professor of Chemical Engineering  
University of South Carolina, Columbia, SC, USA

**Abstract:** In the last ~15 years computational catalysis started to significantly impact catalysis research by providing a new tool for testing experimental hypotheses and by screening a large number of materials in silico. In this seminar, I will present two case studies illustrating the strengths and challenges of computational catalysis. For these topics, I will highlight the importance of solvent effects in catalysis and present recent tools for including solvation effects in computational studies.

