



Polymers under Multiple Constraints

# Polymer- & Soft-Matter-Seminar

**Tuesday,  
17<sup>th</sup> November  
2015**

**at: 5.15pm**

**VDP4 1.27,  
Von-  
Danckelmann-  
Platz 4,  
06120 Halle**

## **Prof. Felix Schacher**

(Friedrich-Schiller-Universität Jena, Jena Center of Soft Matter)

### **“Opportunities for Block Copolymers in Interface Design: Membranes and Hybrid Materials”**

Block copolymers represent a unique class of building blocks for the generation of nanostructured materials in different environments – mainly driven by the inherent immiscibility of unlike segments. Our focus is put on materials which contain at least one segment which can be selectively addressed, either chemically (crosslinking, modification) or physically and how such materials can be used to "design" polymer-polymer interfaces in membrane materials or polymer-metal interfaces. In the latter case, especially core-shell hybrid materials are of interest, e.g. metal or metal oxide nanoparticles where suitable block copolymer ligands allow to control surface charge, charge density, or nature and amount of functional groups being present.