

**Martin-Luther-Universität Halle-Wittenberg**  
**Naturwissenschaftliche Fakultät II**  
**Chemie und Physik**  
**SFB TR 102**

## **POLYMER- UND SOFT-MATTER-KOLLOQUIUM**

**am Dienstag, dem 04.10.2011, 17.15 Uhr,**

im Raum 1.27, Von-Danckelmann-Platz 4

Es spricht:

**Dr. Valentina Domenici, Ph.D.**  
Dipartimento di Chimica e Chimica Industriale,  
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zum Thema:

### **2H NMR investigation of Liquid Crystal Elastomers: Orientational Order vs Thermoelastic behaviour**

#### **Abstract:**

In the recent five years, Liquid Crystal Elastomers (LCEs) have been deeply studied by means of  $^2\text{H}$  NMR spectroscopy to get various molecular properties. Both  $^2\text{H}$ -probe doped LCEs and selectively  $^2\text{H}$ -labelled LCEs were investigated and the main results will be discussed in this brief overview in terms of Orientational Ordering properties. The temperature dependence of the Local Order parameters and the relationship between the mesophase main order parameter and the spontaneous strain of LCEs will be also discussed.