



## **HZB KESTCELLS seminar #6**

### **Surface Photovoltage Spectroscopy and its Application to Thin Film Solar Cells**

Thursday, June 18th at 10:00 in room 14.51-3365, Albert-Einstein-Str.15, 12489 Berlin, Campus Adlershof

#### **Abstract**

Surface Photovoltage Spectroscopy (SPV) is a non-contact method to determine the change in surface potential upon illumination of a semiconductor due to the creation of electron-hole pairs and their separation in a space-charge region at the surface. Using monochromatized light, SPV can be used to determine the absorption onset of a semiconductor device while time-resolved SPV can measure carrier lifetimes.

At the CISSY surface analysis tool at BESSY, a UHV-compatible SPV set-up was recently built and tested. In this workshop we will explore the basics of SPV and its application to analyse thin film devices and their components using the new SPV set-up at CISSY.

#### **Agenda**

10:00 Introduction (I. Lauermann)

10:15 Basics on SPV (T. Dittrich)

11:00 Break

11:15 Set-up of the combined MBE/SPV chambers at CISSY (W. Calvet, T. Dittrich)

11:45 First results from the SPV set-up (B. Chaco, V. Parvan)

12:30 Discussion