

Physikalisches Kolloquium

Thursday, 10.07.14, 17:00, HS 100
Reception with coffee & cookies 16:45

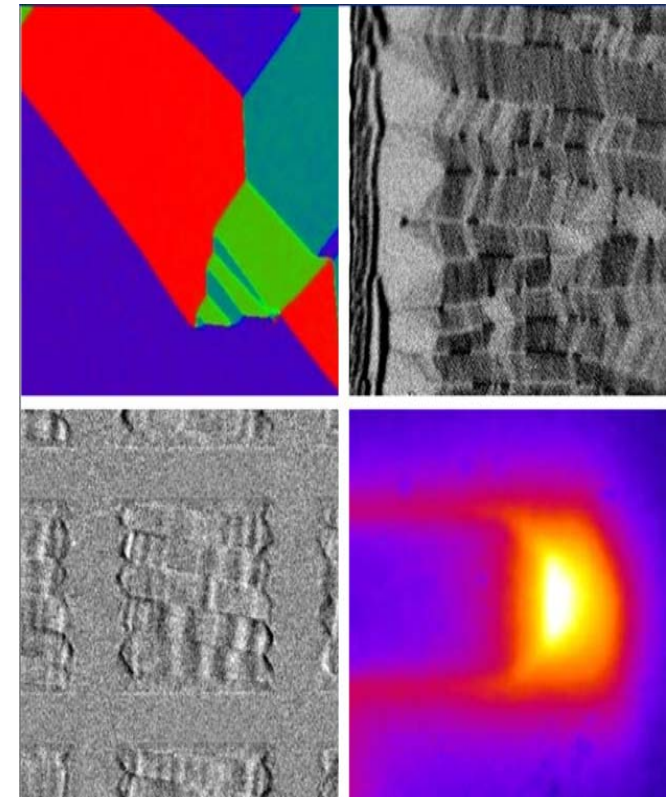


Prof. Jeffrey McCord, Christian-Albrechts-Universität zu Kiel

Magnetism seen by Optics – from DC to Picoseconds

Abstract

Important for the understanding of the origin of magnetic properties and for the technological applications of magnetic materials is the ability to observe magnetic domains and domain wall structures. One common domain observation method is magneto-optical microscopy. The wide-field magnetic microscopy technique is based on the Kerr and the Faraday effect. Recent advances and applications of wide-field magneto-optical microscopy will be reviewed. The versatility and possibilities of the methods will be illustrated, and quantitative domain imaging on extended and patterned magnetic thin films on various examples. These include regular quasi-static as well as dynamic domain imaging. Beyond domain imaging, the use of magneto-optical microscopy for the laterally and time-resolved imaging of temperature fields will be discussed.



All of you interested in physics are cordially invited!