



Andrea Lucarelli

(College of William & Mary, Dep. of Applied Science, Williamsburg)

Time-Resolved Magneto-Optical Imaging of Type II Superconducting Thin Films

Time-resolved magneto-optical imaging, recently developed at the College of William and Mary, offers the possibility to study the superconducting thin films response in presence of both external magnetic field and applied transport current. Instant maps of the magnetic flux distribution in broad areas of the sample are particularly effective to study how structural characteristics of superconducting thin films, such as homogeneity, granularity, defects, and cracks affect the behavior of the superconducting vortex matter. The presentation will include interesting dynamic effects revealed by TRMOI in type II superconductors such as the ac current induced reorganization of magnetic vortex states in YBCO thin films, the kinetic roughening of magnetic flux penetration in MgB_2 and the magnetic cross-talking in multifilamentary YBCO thin film samples.



09. Oktober 2007, 13:00 Uhr

Universität Stuttgart, NWZII, Raum 3.531
Pfaffenwaldring 57, 70569 Stuttgart

