Interdisciplinary FIAS Colloquium

Thursday, December 11, 2008, 14:30
FIAS, Ruth-Moufang-Str. 1, 60438 Frankfurt am Main
Lecture Hall 0.100

Speaker: Prof. Dr. Eleanor E.B. Campbell, School of Chemistry, Edinburgh University, Edinburgh, Scotland

Title: Carbon Nanotubes: Growth, Properties and Devices

Abstract: Carbon nanotubes have many properties that make them interesting candidates for extending the possibilities of electronics beyond the ultimate limits of silicon technology. In this talk I will give an overview of recent work related to the fabrication and characterization of nanotube devices. Our work stretches from the study of the fundamental growth mechanisms and development of techniques to grow good quality nanotubes on temperature-sensitive substrates such as CMOS chips or polymers to the fabrication of crossed nanotube devices and nanoelectromechanical nanotube switches. The challenges associated with the fabrication and characterization of carbon nanotube devices will be discussed and recent results concerned with the fabrication and characterization of a nanotube-gated nanotube FET and a high frequency nanotube relay will be presented.