

# PHYSIKALISCHES KOLLOQUIUM

Mittwoch, 19.06.2013, um 17:15 Uhr

Ort: Reichenhainer Str. 90; Neues Hörsaalgebäude, Raum: 2/N013



**Dr. Jose Garrido**

Walter Schottky Institut,  
Technische Universität München

## **Graphene sensors for bioelectronic applications**

*The development of a new generation of electronic devices that can effectively detect and stimulate the electrical activity of nerve cells is of utmost importance for fundamental research on neuron communication as well as for medical applications in neuroprostheses. Due its maturity, most of the work with field effect transistors (FETs) has been done based on Si technology. However, the high electronic noise and poor stability associated to Si technology have motivated the search for more suitable materials. In this respect, the outstanding electronic and electrochemical performance of graphene, together with its ability to be integrated with flexible substrates holds great promise for bioelectronic applications. In this presentation, I will discuss our work towards the development of a graphene-based platform for applications in bioelectronics. In particular, I will report on arrays of graphene solution-gated field effect transistors (G-SGFETs) which can enable an electrical synapse with electrogenic cells.*

Alle Zuhörer sind ab 17:00 Uhr zum Kaffee vor dem Hörsaal eingeladen.