

# Physikalisches Kolloquium

Thursday, 30.10.14, 17:15, HS 100  
Reception with coffee & cookies 16:45

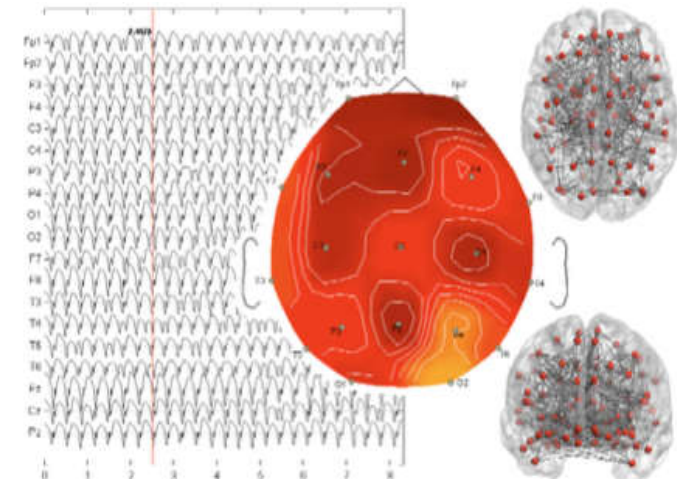


**Prof. Gerold Baier**, University College London, England

## *Rhythms, Sounds and Bifurcations in the Epileptic Brain*

### **Abstract**

Patients with epilepsy arguably provide the most intimate and the most extensive recordings of human brain activity. I review two important types of epileptic seizures to illustrate how seizure rhythm start, spread and terminate. These data are ideal for the development of computational models of normal and abnormal brain dynamics. I discuss some of the challenges faced when trying to combine network biology (anatomy) with nonlinear dynamics (physiology). Validated models may form a basis for novel neuromodulatory therapies based on the understanding of the dynamic mechanisms of human brain activity,



All of you interested in physics are cordially invited!