

Im Oberseminar

## **Numerik**

wird am

**Donnerstag, dem 28. April 2011,**

**folgender Vortrag gehalten:**

**Prof. Dr. Martin Weiser**

**TU Berlin**

## **Numerical Electrophysiology - Challenges and Numerical Approaches**

**Zeit: 16.15 Uhr**

**Raum: F 426**

Interessenten sind herzlich willkommen!

gez. Stefan Volkwein

**Abstract:**

Several diseases of the cardiac system, in particular arrhythmias, concern the electrical excitation of the myocard. An accurate and fast simulation could open the way to better understanding of the development and impact of those diseases and the effect of drug delivery up to individual therapy planning. Such an in-silico simulation incurs a significant computational complexity due to vastly different spatial and temporal scales arising in the reaction-diffusion systems describing the excitation. The talk will discuss the numerical challenges and some specialized approaches that can improve the performance of corresponding finite element computations.

