

## VORTRAGSANKÜNDIGUNG



### **“Regularized Retrospective Image Registration And Its Application to In-vivo OCT Imaging”**

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**Datum:** 08. Juli 2011, 11:00 – 13:00 Uhr

**Ort:** Seminarraum, Zentrum für Medizinische Physik & Biomed. Technik,  
AKH, Ebene 4L, Währinger Gürtel 18-20, 1090 Wien

*“Image registration algorithms are rather advanced and experienced an immense innovation boost in the past decade. Nowadays multi-modal rigid registration is in clinical routine use. Image quality, registration accuracy and registration efficiency are sufficient for many diagnostic and interventional procedures.*

*The major problem that is still considered to be unsolved in image registration is the estimation of deformations in the presence of unknown motion parameters. Periodic and non-periodic deformations can be due to patient motion, respiratory motion or cardiac motion.*

*In this talk I will present novel ideas to image registration and the usage of priors.*

*The core of the talk will focus on the design of objective functions for non-rigid image registration and their efficient optimization.*

*All introduced methods are tested on real clinical data. An overview of initial experimental results will be presented. I will show that intensity based image registration has a huge potential for applications in particular in OCT imaging.”*