TECHNISCHE UNIVERSITÄT WIEN Institut für Computergraphik und Algorithmen Arbeitsbereich für Computergraphik



laden gemeinsam zum

## GASTVORTRAG

## Peter Kohlmann

Fraunhofer MEVIS, Germany

"Development of a Prototypical Software Platform for the Analysis of Pulmonary Magnetic Resonance Images - Project Overview and Preliminary Results"



## Abstract:

Chronic obstructive pulmonary disease (COPD) and asthma are epidemiologically significant diseases of respiratory passages. Both are characterized by airflow limitation and a variable degree of inflammation. Because of its low proton density the lung is probably the most difficult organ to be studied by magnetic resonance imaging (MRI). However, recent technical and methodical developments of MRI indicate the high potential of using MRI of the lung in the clinical routine for an improved diagnosis and therapy monitoring of COPD and asthma. In this talk I will first briefly present the structure and research topics of Fraunhofer MEVIS, Bremen/Germany. Following, I will introduce MeVisLab - a platform for rapid prototyping of medical applications which are based on image analysis. In the main part of the presentation I will discuss the motivation behind the development of an integrated software platform for the diagnosis and therapy monitoring of COPD and asthma based on MRI and show some preliminary results.

## **Biography:**

Peter Kohlmann is currently a researcher at Fraunhofer MEVIS - Institute for Medical Image Computing, Bremen/Germany. He received his Diploma in computer science from the University of Siegen in 2006 and his PhD degree in computer science from the Vienna University of Technology, Austria in 2009. His research interests include medical visualization, smart interaction methods for medical applications, and magnetic resonance imaging of the lung. His scientific works have been published in international journals and conferences such as IEEE Transactions on Visualization and Computer Graphics, IEEE Pacific Visualization Symposium, and Graphics Interface. He served as reviewer for various conferences and journals in the field computer graphics and visualization.



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