

Oct. 1st: Invited Talk



Dieter Hönigmann

Cute Images of Nasty Data – The Art of Ultrasound Data Visualization



Thu., 2009-10-01, 14h15–15h

**Store Aud. (room 2144), Høyteknologisenteret (data blokk),
Thormøhlensgate 55**

Abstract:

Three-dimensional ultrasound (3DUS) is a fundamental advancement in image based diagnostics. For the first time it is possible to acquire and visualize anatomical structures and their pathological changes within a three-dimensional region of the human body in real-time. In order to capitalize on the potential of this modality, development of novel methods for processing and visualization of these data is essential. The unique characteristics due to the underlying physical process of data generation and the interactivity of the modality pose additional challenges.

In my talk I will give a brief introduction to the underlying data acquisition process and the arising data characteristics. I will also address the clinical state-of-the-art in 3DUS visualization and recent techniques developed in order to improve the visualization process. A key issue of clinically useful visualization of 3DUS data is the extraction of relevant information embedded in the data. I will therefore summarize recent advances in processing 3DUS data with the goal of providing a model for visualization of anatomical and pathological structures, and measurement of clinically relevant parameters.