Dec. 19th: Invited Talk

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Visual Analysis of Perfusion Data
with a Focus on Coronary Heart Disease Diagnosis

Fri., **2008-12-19**, **12h15**–13h

Room 534, **UiB Dep. of Mathematics**,
Johannes Bruns gate 12

Abstract:
Perfusion data characterize the regional blood flow in human tissue. For each voxel in the data, a time-intensity curve describes the enhancement of a contrast agent. Parameters derived from these curves characterize the regional perfusion and have to be integrated for diagnosis. The diagnostic evaluation of this multi-field data is challenging and time-consuming due to its complexity.

In my talk, I will present several approaches to tackle this problem: multi-parameter visualization with a focus on glyphs, a visual analysis pipeline for the streamlined analysis (including statistical analysis and feature detection) of perfusion data and the relation of perfusion data to other acquired data, e.g., morphologic scans. The focus of the talk will be on the application of these techniques to myocardial perfusion for the diagnosis of Coronary Heart Disease. Other application areas that will be briefly covered are ischemic stroke and breast cancer diagnosis.