**Title:** AI Driven Shape Analysis for Cardiovascular Risk Predictions

It is well established that the shape of the different heart structures is a predictor for cardiovascular risks like stroke and myocardial infarct. Traditionally, statistical methods like principal component analysis for point distribution models has been the main tool for shape analysis. Modern AI driven approaches like neural implicit functions have shown very convincing results. In this talk, I will give an overview of AI driven approaches for cardiac shape analysis for both static and temporal scans.

**Bio:**

Rasmus R. Paulsen is professor at the section for visual computing, DTU Compute at the Technical University of Denmark. Rasmus also has an office at the heart center at the Copenhagen University Hospital (Rigshospitalet). His current research focus is on cardiovascular risk prediction from large 3D image databases using AI driven methods with a focus on shape representations, generative shape and appearance models, latent space manipulations and reinforcement learning.