

Cardiovascular Diseases: From Data Generation to Analysis

Cardiovascular diseases remain the leading cause of death in Western societies. This presentation will provide insight into the use of expert knowledge and models to derive diagnostic tools that have the potential to aid in the diagnosis of diffuse cardiovascular diseases that tend to be more difficult to detect in CT angiograms. In order to develop these methods more basic research is needed to prove the validity of the approach, including validation of accuracy as well as approach itself. For that, specimens of porcine hearts were prepared and then analyzed followed by a statistical comparison between computed and optical measurements. Similarly, a database of healthy and diseased patient data was used to showcase the effectiveness of the methodology.