

Stellingen

1. A priori information is crucial to achieve an accurate segmentation. *This thesis*
2. A model-based approach in combination with dynamic programming is a robust contour detection technique for poorly delineated vascular structures, such as the outer boundary of the vessel wall. *This thesis*
3. Classification of plaque components requires the use of information from multiple contrast weighted MR images, which can be achieved by means of classification techniques such as fuzzy clustering. *This thesis*
4. Accurate and precise assessment of the severity of the stenosis and plaque burden permits identification of atherosclerosis at an early stage and monitor its evolution. *This thesis*
5. MRA demonstrates the severity and distribution of luminal narrowings, while vessel wall MRI characterizes the plaques in the wall. Combination of both modalities reduces user-interaction and permits estimation of the severity of atherosclerosis more accurately. *This thesis*
6. A 3D segmentation and registration of two serial MR scans of the same patient leads to quantitative and reproducible measurements of the possible changes in plaque burden over time. *This thesis*
7. The capabilities of MRI to characterize plaque composition are limited by the reduced spatial resolution of the data, fuzzy boundaries and image artifacts. The ongoing investigation of new contrast agents that target specific plaque components opens a whole new range of possibilities for the characterization of the vessel wall in MR. *This thesis*
8. Greek authors, despite their attempts at objectivity, became slaves of mythical thinking whenever they tried to explain the invisible. Modern medicine also makes use of imagination when faced with the limits of what is available to observation, even though those limits are constantly being extended.
9. Be kind, for everyone you meet is fighting a hard battle. *Plato*
10. Freedom is not worth having if it does not include the freedom to make mistakes. *Mahatma Gandhi.*
11. Be yourself, there are plenty of others.