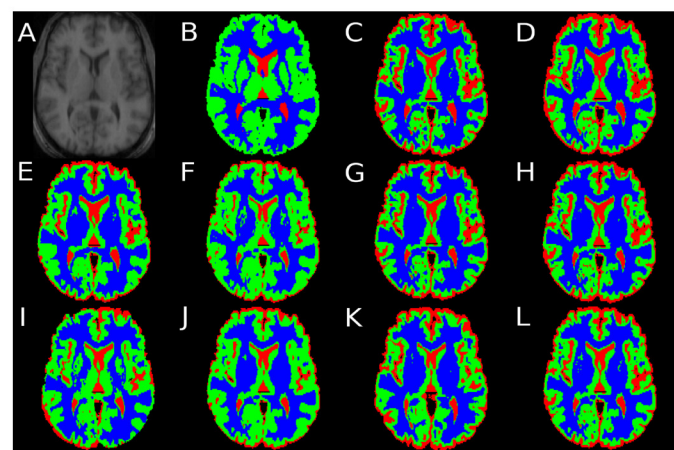
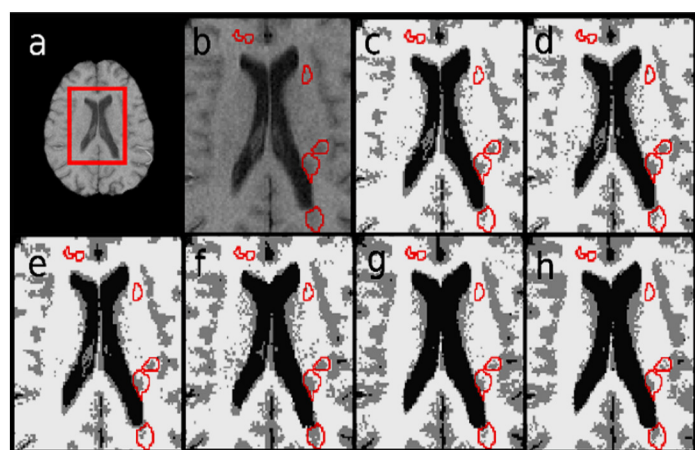


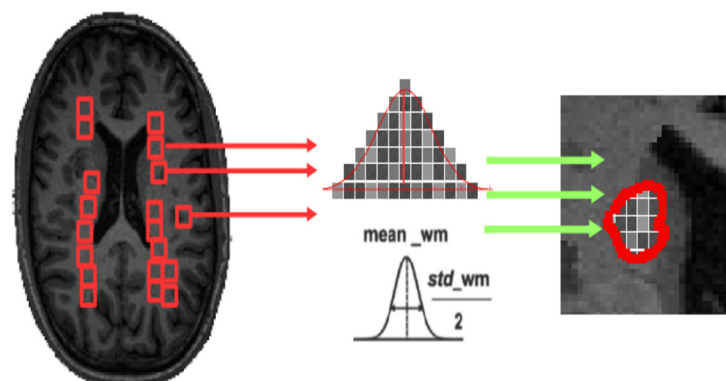
**Chapter 1:** Research context, background of the thesis and objectives



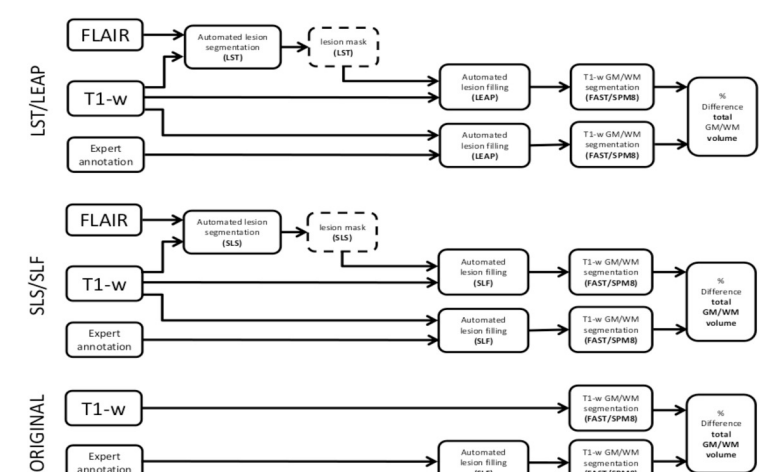
**Chapter 2:** Comparison of 10 brain tissue segmentation methods using revisited IBSR annotation



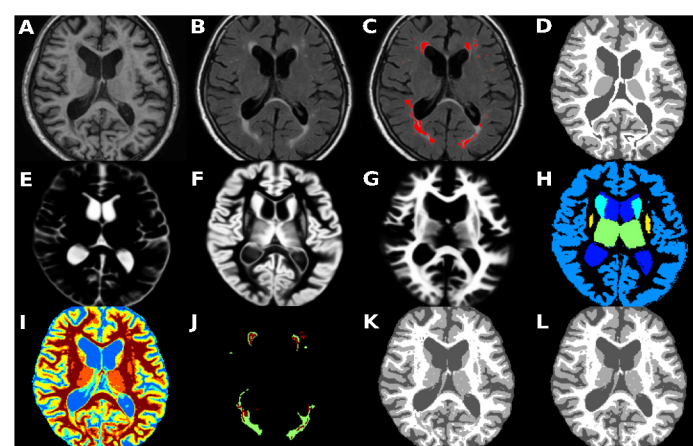
**Chapter 3:** Evaluating the Effects of WM Lesions on the Volume estimations of 6 brain Tissue Segmentation Methods



**Chapter 4:** A white matter lesion-filling approach to improve brain tissue volume measurement



**Chapter 5:** Quantifying brain tissue volume on MS using automated lesion segmentation and filling



**Chapter 6:** Automated brain tissue segmentation of MR images in the presence of WM lesions

**Chapter 7:** Discussion of the results obtained in the different performed analyses and proposed methods suggested in this thesis

**Chapter 8:** Conclusions and future work