

Mri-Based Radiomics in Breast Cancer

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MRI-BASED RADIOMICS IN BREAST CANCER

Optimization and Prediction

- 1. The results of MRI-based prediction studies can only become definitive after the effect of different scanners and variation in acquisition and reconstruction parameters on feature values is unraveled. (This thesis)
- 2. Dedicated axillary MRI-based radiomics with node-by-node analysis for the prediction of axillary lymph node metastasis in breast cancer suggests that the quantitative analysis does not exceed the qualitative analysis by the radiologist. (This thesis)
- 3. The repeatable breast MRI radiomic features found will be a starting point to further investigate the reproducibility. (This thesis)
- 4. Before radiomics can be applied in clinical applications, there is still a long way to go, and many technical, regulatory, and ethical problems still need to be solved. (This thesis)
- 5. Be positive about negatives (Anton Bespalov)
- 6. I can't change the wind, but I can adjust my sails to always reach my destination. (Jimmy Dean)
- Although radiomics is potentially a promising approach to analyze medical image data, many pitfalls need to be considered to avoid a reproducibility crisis. (Dr. Daniel Pinto dos Santos)
- 8. Ik heb het nog nooit gedaan, dus ik denk dat ik het wel kan. (Pippi Langkous)
- Radiologists will remain ultimately responsible for patient care and will need to acquire new skills to do their best for patients in the new AI ecosystem. (Dr. J. Raymond Geis)

Renée W. Y. Granzier Maastricht, 22 September 2022