Stellingen

behorende bij het proefschrift

Prediction of Neurodegenerative Diseases from Multimodal Brain Imaging Data

van

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1. A diversified informative set of features (extracted from a large dataset) is essential to build an optimal decision tree classifier.

   – This thesis

2. The stepwise regression procedure embedded in feature selection leads to robust feature(s). However, the procedure for now can only be applied in binary classification.

   – This thesis

3. Weighting features according to their predictive power and using them all in the classification process is better than reducing the number of features.

   – This thesis

4. Generalized matrix learning vector quantization and decision trees provide insight into brain image data through their presentation of results that is intuitively interpretable for humans.

   – This thesis

5. With generalized matrix learning vector quantization and support vector machine it is possible to distinguish among early parkinsonian syndromes. However, the decision tree method is equally competitive, given features extracted from advanced disease-stage imaging data.

   – This thesis

6. Generating larger training sets encompassing all stages of disease progression can improve the classification accuracy of neurodegenerative diseases.

   – This thesis

7. "The measure of greatness in a scientific idea is the extent to which it stimulates thought and opens up new lines of research."

   – Paul A.M. Dirac

8. Cycling to ponder makes research go around.