Classification of connectivity data.
Comparison of classifiers and dimensionality reduction techniques.

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Abstract

This is the abstract.

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1 Introduction

2 Methods

3 Results

3.1 Importance of large test-set to assess generalization performance

Many studies used limited datasets that do not allow a comprehensive assessment of generalization performance. We used a dataset that allowed to use multiple sessions to test the generalization of the learned model. Here we show the distribution of generalization score as a function of the number of samples in the test set.

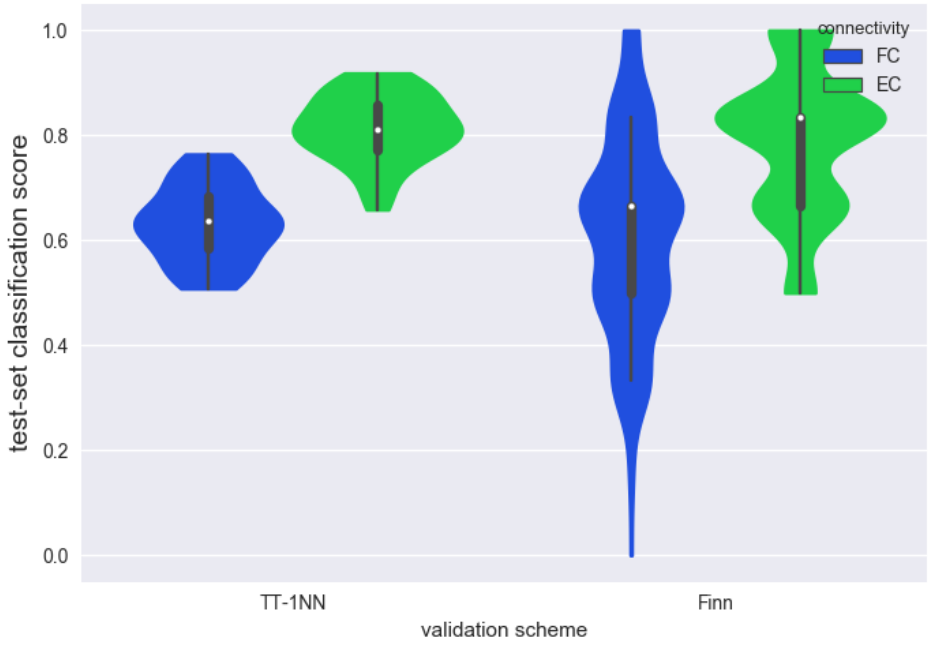

Figure 1: Distribution of test-set generalization score for large and small test set size.

3.2 Comparison of classification pipelines for subjects' identity classification

3.2.1 z-score

3.2.2 PCA

3.2.3 Different classifiers

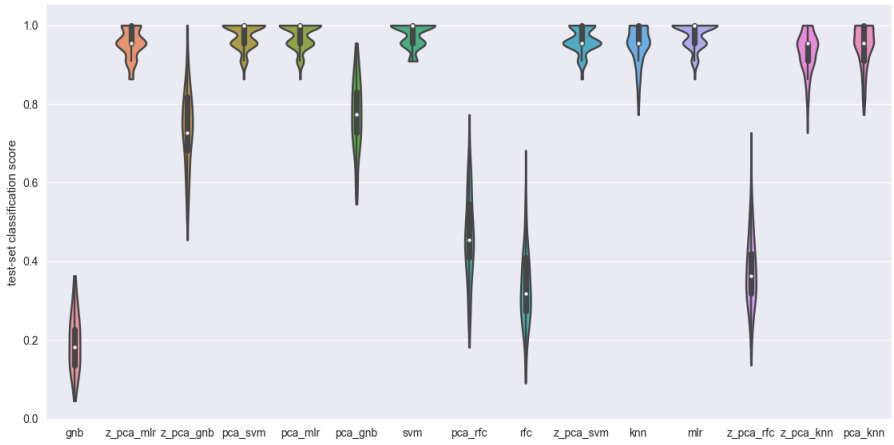

Figure 2: Comparison of classifiers.

3.3 Trade-off between number of samples and signal length

3.4 Feature selection

3.4.1 Information filters

3.4.2 Randomized Lasso

3.4.3 Recursive feature elimination

3.5 Probabilistic class assignment and confidence as graded diagnostics measures

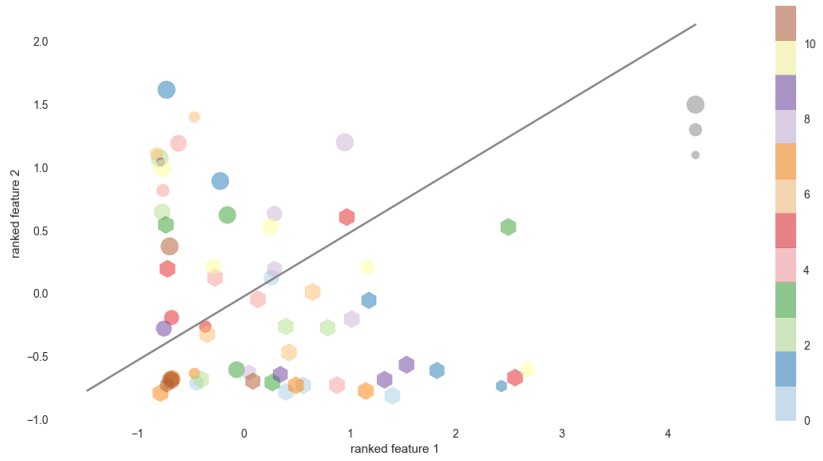

Figure 3: Probability of class assignment.

4 Discussion

resume of the results

explain why they are relevant

discuss generality, dependence on parameters, etc.

discuss other possible approaches (other models, methods, etc.)

possible applications to other fields, themes, etc.

other collateral themes

discuss future directions

Acknowledgments

We thank...

References