

Worksheet Session 5: Decoding and RSA in fMRI

1. Classification

- a. Which classifier performs better on this data: LDA or SVM? In order to answer this question, adapt the code from script 5b such that each classifier was tested for both Color and Shape patterns.
- b. How can you tell which voxels contribute most to classification? What does the feature importance plot actually show?
- c. What does changing the number of voxels or noise level do to accuracy?

2. RSA

- a. How does the neural RDM relate to your model RDMS?
- b. Which model is a better fit to the neural patterns?
- c. How might feature overlap affect RSA interpretations?

3. Generalization

- a. How would you extend this to test generalization (e.g., train on one shape and test on another)?