Methods:

"GEP_findW.m" corresponds to Fig. 4B (Learning).

"GEP_findY.m" corresponds to Fig. 4C (Prediction).

Using these two codes ("GEP_findW.m"; "GEP_findY.m"), "getPrediction.m" calculates the cross-temporal prediction.

Using these two codes ("GEP_findW.m"; "GEP_findY.m"), "getPredictionD.m" calculates the auto-temporal prediction.

"getPredictionMLP.m" calculates the cross-temporal prediction using the multilayer perceptron.

"getInterval.m" corresponds to Fig. 4D.

Simulations:

"Pattern_Codes_Model.m" is the main script for the simulations.

"patternGen.m" generates neural data for simulations. This code generates coactivity patterns that correspond to Fig. 4A (Coactivity pattern).

Applications to neural data analysis:

"Pattern_Codes_Motor.m" is the main script for the neural data analysis. This script contains the procedure that corresponds to Fig 4A (Coactivity pattern).

"getDecoding.m" calculates the cross-temporal decoding.

"getSimilarity.m" calculates the cosine similarity.