# BCI Competition III
Data Set IVc

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**Feature Selection:**

ERD(Event-Related Desynchronization)

**Feature Extraction:**

CSSD(common spatial subspace decomposition)

**Pattern Recognition:**

FDA(Fisher Discriminant Analysis)

**Classification Process:**

Since we have no training data for R(Relax), we use training set to trained a FDA classifier based-on ERD feature extracted by CSSD Filter. First we use a time window long enough to cover the imagine period and intermitted period of each testing sample to get the samples of Relax, label them. Second we use a time window shorter to cover only the imagine period of each testing samples to classify the rest samples in testing set to Left or Foot, and the testing samples which can't be classified well by our classifier will be set between -1 and 1. For accuracy purpose, we use different band pass to filter the BCI data during these two classification process.

**Output Format:**

Please refer to a file named 'result_IVc.txt' along with this E-Mail. It contains 420 lines of testing samples' results with real number between -1 and 1 as required.