- The seismic features can be download from: https://github.com/smousavi05/Seismic-Features-For-Machine-Learning, download and unzip. From which there is an excel file named "final_dataset_for_training.xlsx", there are 444 samples in total (147 deep microearthquake samples with 297 shallow microearthquake samples); for each sample, 40 features are constructed shown in the provided excel file.

- Standardizing these 40 features, and create two subtables under excel file "final_dataset_for_training.xlsx" named as deep standardized and shallow standardized

- Then, randomly split the training and testing set with the training ratio from 10% to 90%; this step was repeated ten times.

- After setting the initial feature weight c_k as ones (40,1) and the upper bound C=100, run classification classification_louisiana.m, with the per, split training and testing dataset.

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