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The SQI computing involves the following steps:

1. Compute SQI_M:

   1.1. Run

   `./IFextract_modeRecon_v2.m`,

   and save as

   `./SQI_results_v2/modes_[dbname].mat`

   1.2. Run

   `./SQIfromModes_v2.m`,

   and save as

   `./SQI_results_v2/SQI_[dbname].mat`
   `./SQI_results_v2/SQIwarped_[dbname].mat`

   (use one of them)

2. Compute the classical SQI of PPG. Run

   `./classical_SQI_v2.m`,

   and saved as

   `./SQI_results_v2/classical_SQI/cSQI_[dbname].mat`

3. Collect the indices for ML-based classification. Run

   `./Assemble_features_v2.m`,

   and save the features as

   `./params_v2/features_[dbname].csv`,

   and the labels as

   `./params_v2/labels_[dbname].csv`

The `dbname` are `DaLiA_train`, `DaLiA_test`, `TROIKA` and `WESAD`, respectively. Note that step 1 and step 2 are actually independent, you can run them simultaneously.

After collecting the features and labels of all the datasets, you can run the LGBM classifier using:

`./lgbm_classify_dbTesting.ipynb`