

- 2) Multi-resolution segmentation algorithm is applied to generate fine scale homogeneous objects.
- 3) In the following step feature extraction objects are calculated on objects and the adjacent objects, including height features, spectral features, shape features and texture features. Redundant features and irrelevant features are existing in the initial feature space. The invalid features are filtered by the wrapper method.
- 4) A random forest classifier is trained based on the optimal feature space, and the initial labels of the objects are obtained.
- 5) Extract adjacent features from the initial classification results.
- 6) Adjacency features and optimal feature subset are composed and used for retraining the RF classifier.
- 7) Obtain the final classification objects labels and mapping the result.
Because we are writing the paper, so the details of step five are not explained here.