ALOS/PALSAR Unsupervised Polarimetric Classification using Complex Wishart Classifier

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We report results of land-cover classification by ALOS/PALSAR polarimetric data using the unsupervised complex Wishart classifier. Interferometric parameters enable us to increase the number of classification categories. Also, radiometric slope correction significantly improves classification accuracy in mountainous areas. The test classification result is evaluated using ALOS/AVNIR-2 data and shows relatively good results. In particular, water, forest and urban areas are accurately classified. We conclude that ALOS/PALSAR polarimetric data is highly capable of accurately classifying land-cover without any effect of clouds. Our ongoing and future work is improvement of classification algorithm, comparison of classifications derived from full-polarimetry and partial polarimetry, and comparison with optical classification results.