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Feature Selection from SAR Images for Terrain Surface Classification

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Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to attract papers with new results on features suitable for classifying terrain surfaces.

The data to be used will be mainly from single, dual or fully polarimetric SAR scenes of Level 0, Level 1 or Level 2 preprocessed SAR components. However, other kinds of satellite imagery can be employed in a complementary way in order to construct features for terrain classification.

The proposed features should appear as the results of mathematical processes carried out on the original data. Such processes could be target decomposition techniques, scattering properties, first-order (or 1-D) statistics, higher-order statistics (texture, co-occurrence approaches between the same band or different bands), geometric, fusion of existing features etc.

The terrain classification performance of the proposed features should be compared with existing approaches in three aspects:

- 1. The number of different terrain types they are able to discriminate;
- 2. The degree (percent) of successful classification as a weighted average for all types of terrain;
- 3. The flexibility of the proposed features to adapt easily to different sets of SAR data.







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Message from the Editor-in-Chief

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