A Paddy's Growth Stages Classification For PiSAR L2 Data Using Fuzzy Model

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Abstract:

Recently, remote sensing technology plays an important roles in agriculture application, especially for paddy's growth stages classification, which is an important process in prediction of crop production using a remote-sensing technology. In this paper, fuzzy model is used to classify 5 paddy's growth stages from 3 polarizations of PiSAR L2 remote sensing data. Two kinds of membership functions are studied to obtain the best fit model for classification evaluated by Cohen's kappa method. The results show that the proposed method was robust and can be applied to make the distribution map of predicted harvest's area using PiSAR images with high accuracy.

Keywords: paddy, growth stages, classification, fuzzy model, PiSAR