

## Study on the Spatial Analysis of River Flooding in the Amur River Basin

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Amur River is flowing through the border of China and Russia, and pour into the sea of Okhotsk. There are three plains in the Amur River basin, China famous commercialized food producing area of the Sanjiang Plain and the Songneng Plain are two of them. In order to develop the arable land in recent years, the land cover change and destroyed natural environment made the floods to be easily happened which be concerned. On the other hand, the drainage area of Amur River is 2.05 millions km<sup>2</sup>, it is a problem for satellite observation in spatial, and for extracting the flood information when there are clouds in the sky, the microwave image is used, but it will be expensive in the area of Amur River basin. So the analysis of river flooding will be the challenge. In this study, in order to understand the flooded situation of the Amur River basin, we used high temporal resolution satellite image to extract the two big floods of 1998 and 2013 by the spectral absorption characteristics of the water. We understood that there are different courses in twice flooded, and at the downstream of Amur River where is well to flooding, because of the wetland be changed and topography relief bring about drain off water difficulty.

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