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## EXTRACTING TEMPORAL AND SPATIAL DISTRIBUTIONS INFORMATION ABOUT ALGAL GLOOMS BASED ON MULTITEMPORAL MODIS

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Keywords: Taihu Lake; algal blooms; spatio-temporal distribution

**Abstract.** Based on MODIS remote sensing data, method and technology to extraction the time and space distribution information of algae bloom is studied and established. The dynamic feature of time and space in Taihu Lake from 2009 to 2011 can be obtained by extracted method. Variation of *cyanobacterial* bloom in the Taihu Lake is analyzed and discussed. The algae bloom frequency index (AFI) and algae bloom sustainability index (ASI) is important criterion which can show the interannual and inter-monthly variation in the whole area or the subregion of Taihu Lake. Utilizing the AFI and ASI from 2009 to 2011, it found some phenomena that: the booming frequency decreased from the north and west to the East and South of Taihu Lake. The annual month algae bloom variation of AFI reflect the booming existing twin peaks in the high shock level and lag trend in general. In the subregion statistics, the IBD and ASI in 2011 show the abnormal condition in the border between the Gongshan Bay and Central Lake. The date is obvious earlier than that on the same subregion in previous years and that on others subregion in the same year.

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