Applying Support Vector Regression to the Prediction of Typhoon-Rainfall

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ABSTRACT

It belongs to the typhoon to take place and bring the natural calamity of great injury frequently in Taiwan. The statistic frequency of happened typhoon of Central Weather Bureau is about thirteen times equally all the year, and concentrating between June and November. During this time is more frequency happened on August and September. On this time, the southwest-airstream is in vogue. The rainfall of typhoon and southwest-airstream are sizable and occur the great injury. In order to take precautions the great injury, this paper purpose the support vector regression of support vector machine to predict the rainfall. The input factors are route of typhoon, seat point of typhoon, maximum air pressure, maximum velocity near typhoon center and the radian of storm. The output factor is rainfall. The result is to confer the prediction ability of rainfall of according to typhoon ’ s route and subregion ’ s rainfall under typhoon ’ s route.

Keywords : support vector machine ; support vector regression ; typhoon

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