Precipitation trend tracking and estimation with Doppler radar by window moving average method

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Doppler radar has been widely used to estimate precipitation by measuring reflected microwave and converting it to precipitation. This equipment has the several virtues such as high resolution(1km x 1km) and wide coverage, so that's why the radar has been accepted as potential tool for precipitation measurement. However, there are several limitations caused by structure that this thing can only detect cloud intensity, not prepitation so precise correlation between prepicitation and radar intensity should be required. There are many kinds of researchs such as data assimilation with rainfall estimation and black box model design for correlation tracking between precipitation and radar intensity. The latter thing has a great advantage of being a simple structure and high precision if training sets are selected appropriately. So it is very important to select the training sets into which the trend of its system is taken appropriatly In this study, window moving average method is applied into this selection of training sets for decreasing the noise of input variables and improving the performance of precipitation trend tracking.