



Dynamic Critical Rainfall-Based Flash Flood Early Warning and Forecasting for Medium-Small Rivers

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China is extremely frequent flood disasters hit countries, annual flood season flash floods triggered by rainfall, mudslides, landslides have caused heavy casualties and property losses, not only seriously threaten the lives of the masses, but the majority of seriously restricting the mountain hill areas of economic and social development and the people become rich, of building a moderately prosperous society goals.

In the next few years, China will focus on prevention and control area in the flash flood disasters initially built “for the surveillance, communications, forecasting, early warning and other non-engineering measure based, non-engineering measures and the combinations of engineering measures,” the mitigation system.

The latest progresses on global torrential flood early warning and forecasting techniques are reviewed in this paper, and then an early warning and forecasting approach is proposed on the basis of a distributed hydrological model according to dynamic critical rainfall index. This approach has been applied in Suichuanjiang River basin in Jiangxi province, which is expected to provide valuable reference for building a national flash flood early warning and forecasting system as well as control of such flooding.