



## **The Construction and Application of Qingshitan Reservoir Precipitation Ensemble Forecast Model**

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The ensemble forecast of numerical precipitation can reduce the uncertainty caused by single value forecasting, and it is a hot topic both at home and abroad. But most of the researches at present treat the forecast skills of set members equally, and obtain the final forecast conclusion with the average value of the collective arithmetic extensively, so this kind of method can hardly effectively show the differences among the forecast skills of different parameterization schemes. Aimed at this problem, the Qingshitan Reservoir located at the rainstorm center of Guangxi Province was selected in this thesis as the research area and a comprehensive quantitative evaluation model based on the ETS grading was built, through sensitivity analysis on the WRF model and the 21 groups of parameterization schemes and the quantitative analysis for the number of samples and ensemble forecast skills, the establishment of ensemble forecast scheme of rainfall in Qingshitan Reservoir was realized based on the ETS evaluation results. Through verification, compared with the collective arithmetic average forecast, the ensemble forecast scheme constructed in this thesis has higher skills and a more stable performance.