

## CHAOTIC CHARACTERISTICS ANALYSIS OF YARKAND GLACIER OUTBURST FLOODS

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The outburst floods derived from high mountain glacier lakes generally have stochastic and uncertainty. In this paper, the method of rebuilding time series imbedding space is introduced firstly, and the main indexes including correlation dimension  $D$ , Lyapunov exponent and Kolomogorov entropy, which characterize the chaotic behavior, are described. Then, the glacier outburst floods of Yarkand River in Xinjiang, China are taken as a typical inordinate example. Based on the flood data since 1953 the analytic results show that the time series of Yarkand glacier outburst flood has some characteristics of chaotic dynamic system, and the conclusions are to be a basis for setting up the Yarkand glacier outburst flood forecasting model.