Application of Group Method of Data Handling to Strean-Way Transition

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Abstract

The main purpose of this paper is to predict streamway transition with group method of data handling (GMDH). Therefore, the downstream stream-way transition according to the upstream conditions is forecasted by group method of data handling. Five main factors may affect the stream-way transition include inflow position, inflow angle, slope, flow discharge, and sand content of suspended sediment. We selected some cross sections of Ta-Chia River in Taiwan as a case study. The results show that GMDH has better performance than the traditional linear regression method.

Keyword：stream-way transition; group method of data handling; linear regression method