

RESEARCH ON CHANGE DETECTION IN REMOTE SENSING IMAGES BY USING 2D-FISHER CRITERION FUNCTION METHOD

B. Zhang^{*a} K. Chen^a Y. Zhou^a M. Xie^a H. Zhang^a

^a Zhengzhou Institute of Surveying and Mapping, No 66 Longhai Middle Rd, 450052, Zhengzhou, China

Technical Commission VII Symposium 2010

KEY WORDS: change detection, Fisher criterion function, Image Threshold, two-dimension histogram, remote sensing image

ABSTRACT:

In this paper, 2D-Fisher criterion function was introduced to change detection in remote sensing images based on classic one dimension fisher criterion function, and this expanded the space of grey value from one-dimension to two-dimension and greatly improved the image noise-sensitivity. Meanwhile, in order to enhance the computing speed, we refined the solution method of 2D threshold in 2D-Fisher criterion function through transforming computing method from two-dimension threshold to two one-dimension thresholds and greatly reduced the detection time. Refined 2D-Fisher criterion function method was suitable not only for the change detection in remote sensing images, but also for other aspects in data processing.

TOPIC: Change detection and process modelling

ALTERNATIVE TOPIC: Change detection and process modelling