

# **A SPATIO-TEMPORAL AUTOCORRELATION CHANGE DETECTION APPROACH USING HYPER-TEMPORAL SATELLITE DATA**

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## **ABSTRACT**

There has been recent developments in the use of hypertemporal satellite time series data for land cover change detection and classification in South Africa and in particular, the monitoring of human settlement expansion is of relevance as it is the most pervasive form of land-cover change in the country. In this paper, a spatio-temporal change detection method is proposed that is applicable over large regions. This is achieved by adjusting the change threshold based on the change properties of a neighbourhood of pixels. Results indicate that the addition of spatial information increase change detection accuracy when compared to a pixel based approach.