

ENTROPY ALGORITHM FOR AUTOMATIC DETECTION OF ICE FROM MODIS SATELLITE DATA

Maged Marghany

Institute of Geospatial Science and Technology (INSTeG)
Universiti Teknologi Malaysia
81310 UTM, Skudai, Johor Bahru, Malaysia, maged@utm.my,
magedupm@hotmail.com,

Abstract: Satellite Earth observation data are proper for ice automatic detection and mapping which are important causes finding to ice automatic detection planning. This study aims to investigate the capability of MODIS satellite data for ice detection. In doing so, entropy algorithm used to extract and enhance the boundary properties of ice zone. The study shows that entropy algorithm is able for ice automatic detection with standard error of 0.67. In addition, entropy algorithm can preserve the boundary edges of ice zone. In conclusion, MODIS satellite data are able for ice detection and mapping by using the entropy algorithm algorithm.

Keywords: MODIS, Sea ice, Entropy algorithm, kernel window size, Automatic detection,