

Abstract :

The main goal of the paper is to use the so-called Hurst exponent estimated by linear regression of the modulus of the continuous wavelet transform of the horizontal component of a given InterMagnetic observatory data versus the scales for geomagnetic storms prediction and analysis. Application to Wingst observatory data of the May 2002 period shows clearly that the Hurst exponent can be used as an index for geomagnetic storms analysis, prediction and detection.