

DST index prediction from InterMagnet Observatories data using the artificial neural network

L.Aliouane(1), S. Ouadfeul (2)

(1) LABOPHYT, FHC, UMBB, Algeria (2) LIMOSE, Faculté des Sciences physiques, UMBB, Algeria

Abstract

In this paper, a tentative of prediction of future DST index values from the two horizontal components of geomagnetic field using a feed forward neural network is established. The feed forward neural network machine is constituted of two neurons in the input layer, ten neurons in the hidden layer and one neuron in the output layer. The training algorithm is the Output Weight Optimization - Hidden Weight Optimization [1]. Application to real geomagnetic data of the InterMagnet observatories data shows that the proposed neural network machine is able to help geomagnetic storms prediction.

Keywords: geomagnetic, storms, prediction.

References:

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