

APPROXIMATION OF MAGNETIC DATA SURFACE WITH ANN (ARTIFICIAL NEURAL NETWORK) METHOD

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Aero magnetic digital gridded data acquired and processed by US geological survey with Mexican collaborators have been downloaded from internet. The field dataset is a part of the Online Magnetic Dataset for North America, with more than 200,000 data points. Using ANN method a surface has been fitted to the magnetic data. ANN is programmed under Matlab software environment by using Multi Layer Perception (MLP) structure. The ANN model had multilayer perception structure most programmed on there Matlab. The accuracy of surface approximation was tested by 1) comparison with result of other methods contained in Surfer program; 2) Interpolated known data on the surface.

North American magnetic dataset, ANN method, approximation, accuracy