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Reconstruction of EIGEN-1S, EIGEN-2, EIGEN-GRACE01S, EGM96 geopotential models using Spherical Wavelets

Case study: Region of Iran

M. Jafari, V. Nafisi, Gh. Jodaki and A. Safari

Department of Surveying and Geomatics Eng., Center of Excellence in Geomatics Eng. and Disaster Management, University of Tehran, P.O. Box 11365-4563, mz_jafari@yahoo.com

Wavelets have proven to be powerful bases for use in numerical analysis and signal processing. Their power lies in the fact that they only require a small number of coefficients to represent general functions and large data sets accurately. This allows compression and efficient computations. In this paper we tried to have the spherical wavelet reconstruction of, EIGEN-1S, EIGEN-2, EIGEN-GRACE01S, EGM96 models for the some types of wavelets such as Shannon, CuP and Abel-Poisson up to scale 8 then this construction compared to the other expression of aforementioned models in term of spherical harmonics on the region of Iran**.**