P PHASE AND S PHASE DETECTION USING THE DAUBECHIES WAVELET TRANSFORM (DWT) (MonPmOR5)

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Abstract :

The wavelet transform is one of the important methods that are used to minimize noises and to analyze signals. The choice of wavelet and its associated scaling function are very important to obtain the most useful wavelet transforms. In the present work, it was investigated that the easy obtaining of the P and S phases by minimizing the noise at the three−component seismograms displacement records using Daubechies Discrete Wavelet Transform. The after shocks of the earthquake that occurred at the Afyon−Sultandağ (Turkey) on 03−04 February 2002 were used as real data. This work shows that the Daubechies Discrete Wavelet Transform gives very successful results at determining the P and S seismic phases without deforming the main characteristics of the required signal, thus making the data more comprehensible.

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