Geophysical Research Abstracts,
Vol. 11, EGU2009-8592-1, 2009
EGU General Assembly 2009

A Comparison on Wavelet and Classical Wave Transforms for Microtremors and Earthquake Data Analysis: Some Examples form Istanbul

H. Alp, S. Karabulut, F. Ozcep, O. Ozel, and A.M. Albora
Istanbul University, Geophysics, Avcilar, Turkey (hakanalp@istanbul.edu.tr)

An important consideration in data processing is to discriminate between usable signal and noise. Studies using seismic and ambient noise data in many applications must consider the signal-noise ratio. In this study, it is compared wavelet transform and classical wave transforms with context in microtremors and earthquake data. The wavelet transform is used to decompose random processes into localized orthogonal basis functions, providing a convenient format for the modeling, analysis, and simulation of non-stationary processes. Earthquake data obtained from different observatory stations and microtremor measurements were used in this comparison. Wavelet wave transforms is a powerful tool to discriminate time depending data.