Wavelet Analysis of the Seismograms for the Earthquakes from the Andaman- Sumatra Subduction Zone

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The Andaman-Sumatra subduction zone is primarily responsible for tsunamigenic earthquakes affecting the Indian sub-continent. We have divided the Sumatra-Andaman subduction zone into 6 blocks and most of the earthquakes have occurred within $2^{\circ}x2^{\circ}$ grids and magnitudes ranging from 6-9.3. Using SEISAN software, we have analyzed the first arrival of P-wave recorded by the broadband seismometer at Hyderabad GEOSCOPE station. About 10 earthquakes of magnitudes ranging from 6-9.3 for each of the source grid were considered in our analysis. We have considered about 4 minutes of the seismogram which is comprised of the P wave and it's Coda. For this data set, wavelet analysis has been carried out and the signatures in wavelet domain are interpreted to identify different components of the seismogram.