



Low frequency non volcanic tremor along the Apennines, Italy

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This paper reviews the main observations on low frequency tremor made along the central Apennines, one of the most active seismic zones of Italy. These observations have been made by using seismic signals recorded by an underground small aperture seismic array (UNDERSEIS) operating since 2002, composed by 20 three component short period seismometers.

Detailed analysis of data recorded in recent years indicate that this phenomenon is quite rare. Only one tremor episode, characterized by low frequency content and duration of several hours, has been detected to date. This event was recorded in January 2004 without any correlation with the occurrence of slow or regular earthquakes. Although the signal to noise ratio is very low, the results of detailed analyses show that its frequency contents and wave field characteristics are compatible with a low frequency non volcanic tremor.