



Preliminary results of very fast computation of Moment Magnitude and focal mechanism in the context of tsunami warning

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Various methodologies were recently developed to compute the moment magnitude and the focal mechanism, thanks to the real time access to numerous broad-band seismic data.

Several methods were implemented at the CENALT, in particular the W-Phase method developed by H. Kanamori and L. Rivera. For earthquakes of magnitudes in the range 6.5-9.0, this method provides accurate results in less than 40 minutes. The context of the tsunami warning in Mediterranean, a small basin impacted in less than one hour, and with small sources but some with high tsunami potential (Boumerdes 2003), a comprehensive tsunami warning system in that region should include very fast computation of the seismic parameters. The results of the values of M_w , the focal depth and the type of fault (reverse, normal, strike-slip) are the most relevant parameters expected for the tsunami warning.

Preliminary results will be presented using data in the North-eastern and Mediterranean region for the recent period 2010-2014.

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