



## **Source Evaluation of the Gloria Fault tsunami 26.05.1975**

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The 26.051975 earthquake, of magnitude  $M_s=7.9$ , occurred in the north Atlantic closed to the Azores archipelago. This event generated a small tsunami that was clearly recorded at the Portuguese tide gauge network and in Spain: Ceuta, Cadiz and Las Palmas de Gran Canaria. The epicenter was located by USGS 17.5 W, 35.9N, 200 km south of the Gloria Fault, Azores Gibraltar Fracture zone (AZFG). Several authors determined the focal mechanism as a strike slip event with no significant dip-slip component.

The event of 1975.05.26 is analyzed from the tsunami “point of view” and the results obtained by inverse and forward modeling give some constrains on source location and mechanism.

In this paper we present tsunami simulations, backward ray tracing (BRT) and forward non linear shallow water (NLSW) simulations using data from Portugal, mainland and Azores and Spain.

The results of tsunami simulations are presented and checked against seismological conclusions.