ID: Type: **Oral**

T4.1-O4. Improvement in the seismic detection threshold in the Brazilian Amazon

The Brazilian Amazon is located within the stable interior of South American plate, region characterized by low magnitude seismicity with only few earthquakes of magnitudes above 5. However, with an expressive number of magnitude 3 – 4, but detected by sparse network and, consequently being poorly studied. Recently this scenario has changed with the implementation of the Brazilian Seismographic Network (RSBR), project jointly deployed by the universities of São Paulo, Brasilia, Rio Grande do Norte and National Observatory (funded by Petrobras), composed by 80 stations, of which 25 within the Amazon. Stations equipped with broadband sensors and real time satellite data transmission. The network data are open to the international community. The Amazon network already has shown an improvement to the detection threshold and location accuracy. The previously regional threshold, to the primary and auxiliary International Monitoring System (IMS) stations showed magnitudes of about 4, and with the new RSBR network this threshold dropped to magnitude around 3. The current network will help on the seismic activity monitoring and record events that might attend the requirements of a Ground Truth event. In this work, we study the improvement of IMS network threshold detection after the installation of the RSBR network.

Primary author: DE CARVALHO, Juraci Mario (Seismological Observatory)

Presenter: DE CARVALHO, Juraci Mario (Seismological Observatory)

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