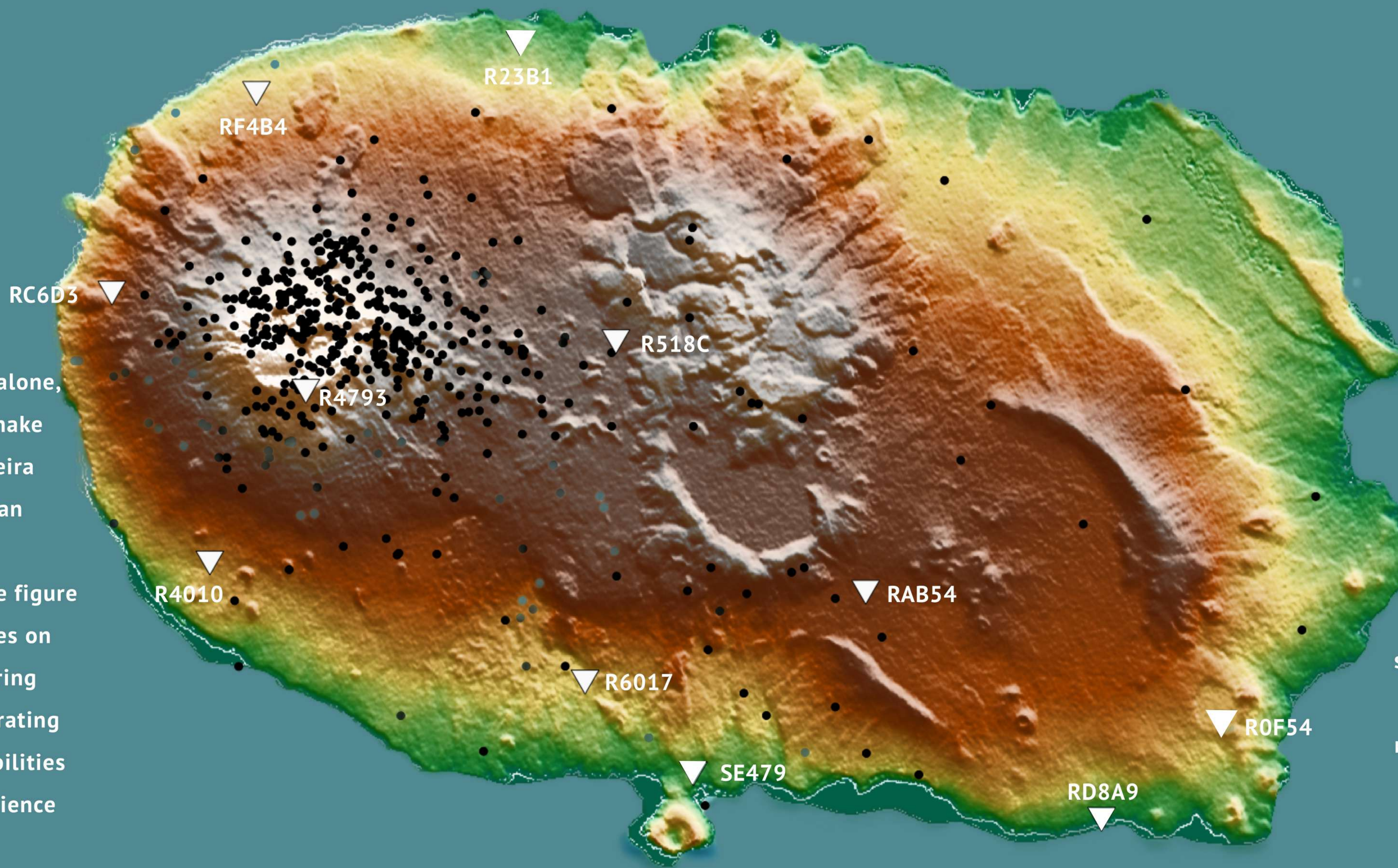


The Democratization of Seismology in Angra do Heroísmo Municipality (Terceira Island, Azores): a Citizen Science Case Study

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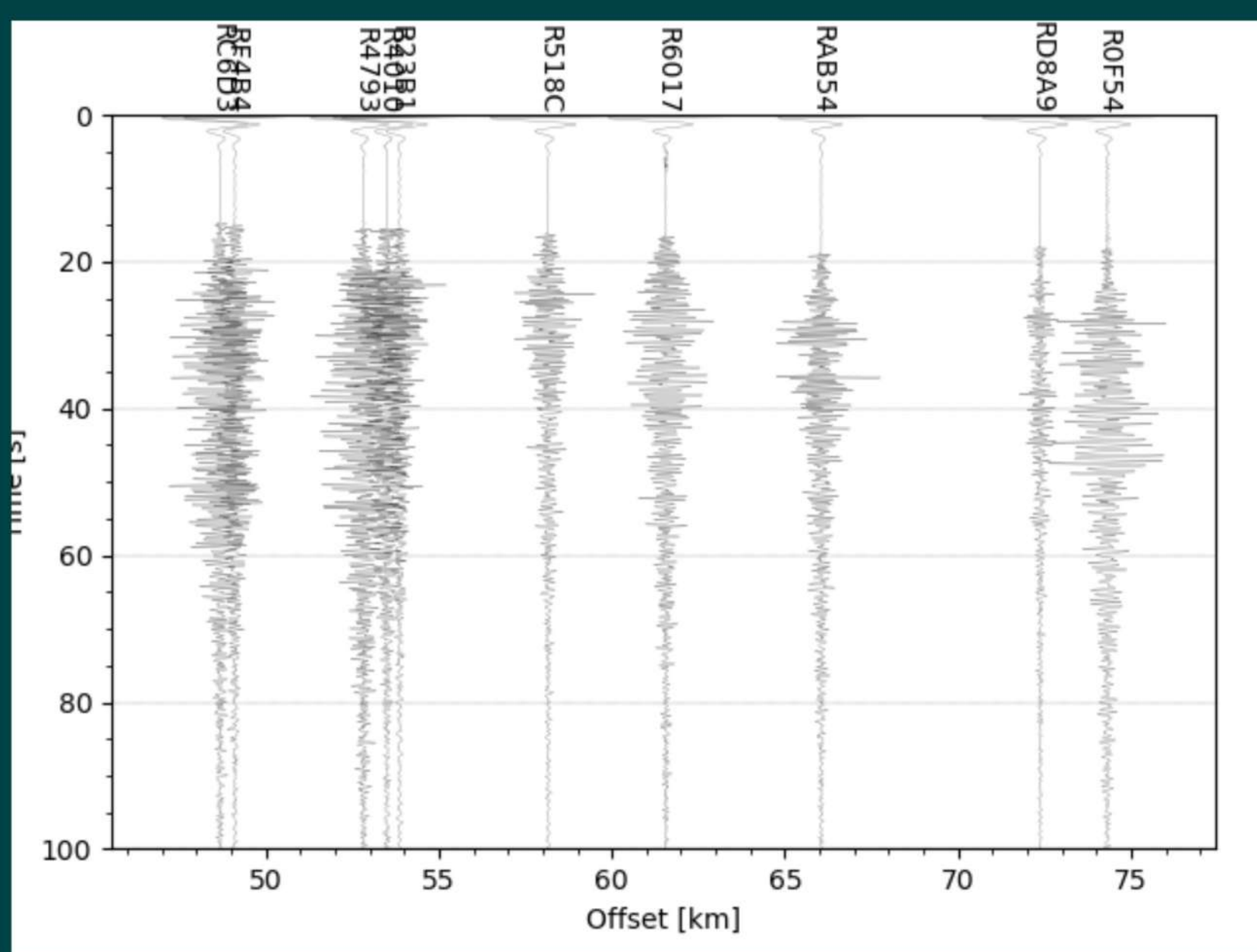
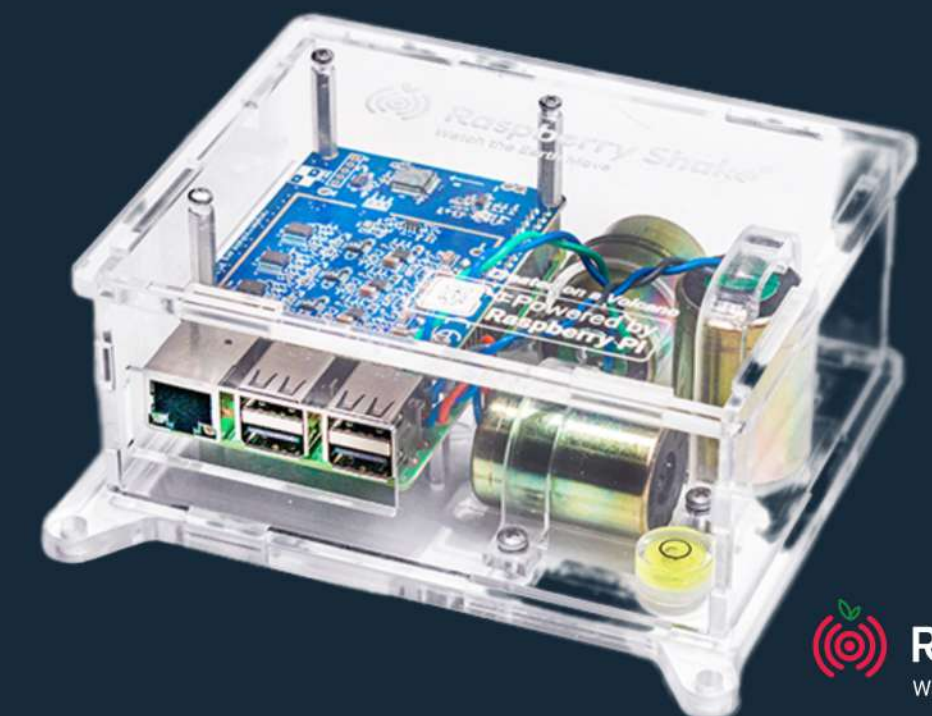
In August 2024 alone, the Raspberry Shake network on Terceira Island recorded an impressive 569 earthquakes. The figure presented focuses on seismicity occurring inland, demonstrating the robust capabilities of this citizen science initiative.

In selecting sites for seismic station installations, we prioritized accessibility by focusing on schools, parish council offices, and municipal buildings. While potential sources of anthropogenic seismic noise weren't a primary concern, the data collected has remained highly consistent and reliable, as shown in this poster.

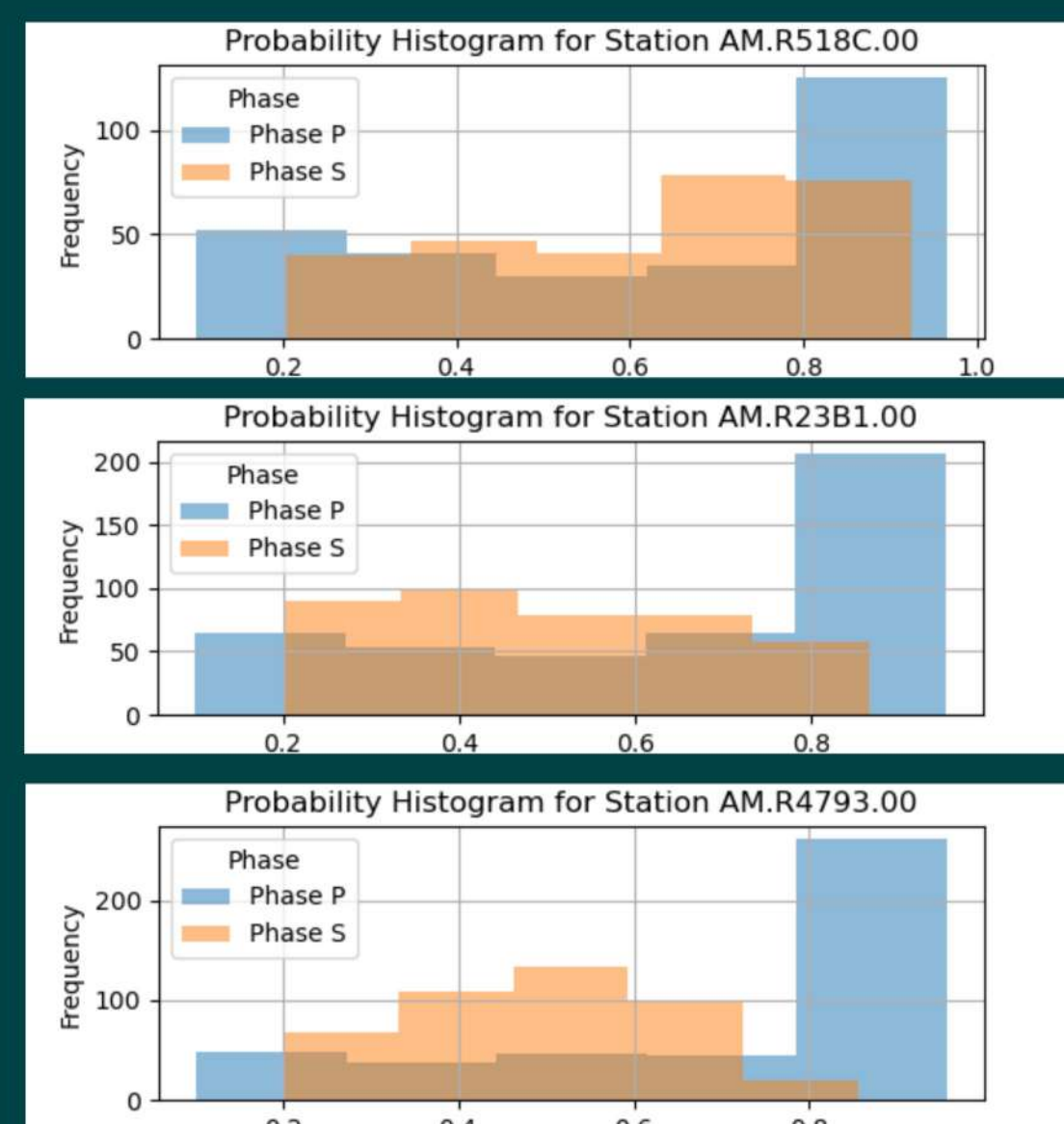
Angra do Heroísmo is leading Portugal's first citizen science initiative in earthquake monitoring by deploying eleven low-cost Raspberry Shake seismometer, across the municipality, with a later addition bringing the total to twelve, to enhance seismic awareness, preparedness, and advancing earthquake monitoring within both the community and scientific fields.

This initiative aims to:

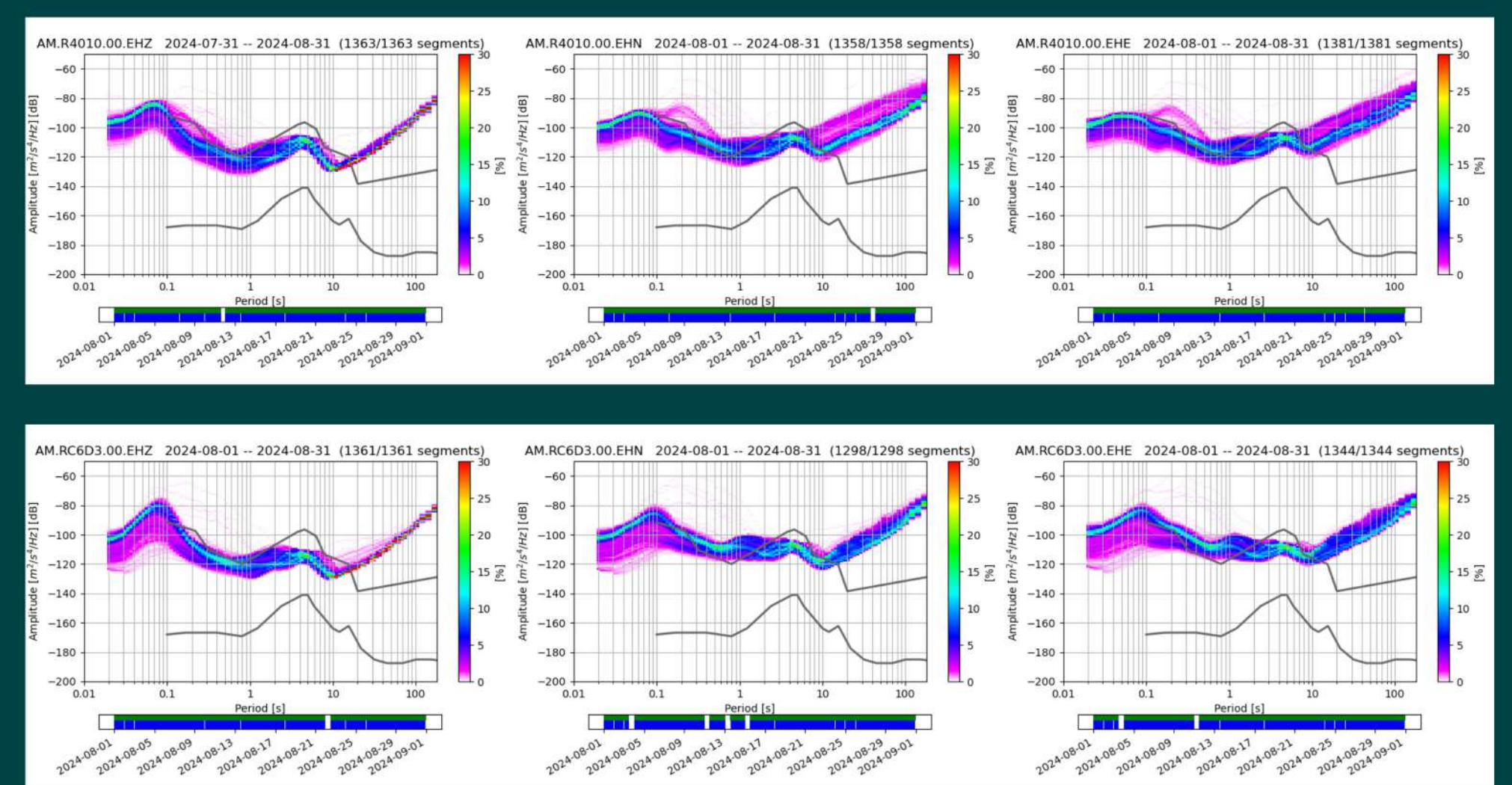
- Actively engaging residents in earthquake monitoring and seismic risk awareness.
- Raising awareness about seismic risks in a seismically active region.
- Incorporating real-time seismic data into STEM education in local schools.
- Fostering a culture of preparedness and contributing valuable data to the scientific community.



Record section of earthquake M_L 3.6 of 2024-08-16T00:26:58 epicentral coordinates 38.98N 27.83W (filter 0.5Hz - 3.0 Hz).



The probability histogram illustrates the results obtained from the RaspberryShake network. Top and middle figures: these show the results from the RS 3D model. Bottom figure: this represent the results from the RS 4D model.



Probabilistic Power Spectral Densities (PPSD) for seismic stations R4010 (top) and RC6D3 (bottom), showing results for each component. Both seismic stations are RaspberryShake 3D which include three components.

Libraries used:



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