

Daily monitoring of low-frequency earthquake activity

Ariane Ducellier, Scott Henderson

Winter 2020 Incubator project

Low-frequency earthquakes

- Small magnitude ($M \sim 1$)
- Dominant frequency low (1-10 Hz) compared with that of ordinary tiny earthquakes (up to 20 Hz)
- Source located on the plate boundary
- Grouped into families of events, with all the earthquakes of a given family originating from the same small patch on the plate interface
- Recurrence more or less episodic in a bursty manner

What we do now

What we aim to do

First step: Python package

Second step: Command line

Third step: CronJob

Fourth step: Improving computing time

Fifth step: Saving results

To do in the future: Amazon Lambda

Conclusion