

IMS Seismic Network Used to Support and Mitigate Volcanic Risk with One Single Station Method

Is well known that one of the more accurate method to predict a possible volcanic eruption is by the seismic monitoring. The ideal way to do it is complementing and matching the seismic data with other type of monitoring like infrasound, soil deformation measured by GPS, relevant chemistry and minerals variation in the hydro-thermal system around the volcano, heat measure of the ash plumes and the volcanic body, etc. But what happened when the resources are not enough and when there is just a single seismic station in the vicinity of the volcano? Is possible to record the seismic activity with just one sensor and obtain an acceptable location and confident parameters of the events recorded? In this work will be discussed how some of the IMS seismic sensors that are close to active volcanoes or the ones that has the potential to be active, can make the role of early warning in case of poor or null monitoring in particular volcanic regions. This will be explained with real cases of study happened in some volcanoes around the world.

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