

# Analysis of the Hunga-Tonga-Hunga-Ha'apai Eruption and Mauna Loa Eruption with Three International Monitoring System Technologies

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The eruption of the Hunga-Tonga-Hunga-Ha'apai volcano on 15 January 2022 was the largest recorded since the eruption of Krakatoa in 1883. The eruption triggered tsunami waves of up to 15m which struck the west coast of Tongatapu, 'Eua and Ha'apai.

In this work we analyse data of this event. With a magnitude of mb 4.2 at 04:14:59 UTC, the eruption was detected by the three International Monitoring System (IMS) technologies. This work includes data analysis with the HA11 and HA3 hydroacoustic stations with the integration of the location of the event with the seismic and infrasound data of the stations close to the event. In addition we analyse signals related to the Mauna Loa eruption from infrasound, seismic and hydroacoustic IMS stations, which detected an event located in Hawaii, USA, 28 November 2022 at 08:56 UTC.

## E-mail

yasmin\_hameed32@yahoo.com

## Oral preference format

## Promotional text

Analysis data of eruption with three International Monitoring System technologies.

**Primary author:** Ms SHAMKHI, Yasameen Hameed (Iraqi National Monitoring Authority)

**Presenter:** Ms SHAMKHI, Yasameen Hameed (Iraqi National Monitoring Authority)

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