

EGU22 Media Tip Sheet: Insights from recent volcanic eruptions

A volcanic eruption can wipe out whole ecosystems, build new land and even alter the Earth's climate. In the last couple of years, research on volcanoes has grown to explore events that led to the eruption, what can and should be done during a volcanic event, and interventions that can improve community wellbeing posteruption. The following abstracts showcase some of latest research on volcanoes around the world.

Complex seismicity patterns accompanying the 2021 volcanic eruption at La Palma, Canary Islands, Spain

In this presentation, scientists provide details of seismicity accompanying the volcanic unrest at La Palma and document the evolution of seismogenic processes in response to the rise of magma batches through the complex plumbing system.

Mon, 23 May, 08:54-09:00 CEST

Session GMPV9.2

@Involcan communication strategies on the 2021 Cumbre Vieja eruption: Of do's, don'ts, trolls and other fantastic beasts

The multi-faceted role of social media in times of natural disasters has been long questioned by experts, both in terms of benefits and issues alike. Scientists now discuss insights from the 2021 Cumbre Vieja eruption from the lens of communication exchanges during an eruption.

Mon, 23 May 15:46-15:52 CEST

Session GMPV9.2

Contrasts in volcanic risk perception among Goma population before the Nyiragongo eruption of May 2021 (East DR Congo)

Today, risk perception is recognized as an important element to consider for effective risk management at the time of eruption, especially in densely populated cities close to volcanoes. Researchers find that risk perception is mostly shaped by risk cognitive and psychological factors rather than demographic factors (group, family status and previous risk experience).

Wed, 25 May, 10:26-10:31 CEST

Session NH9.11

The global reach of gravity waves at the stratospheric speed limit from the 2022 Hunga Tonga volcanic eruption

Wave observations are unprecedented in over 20 years of stratospheric satellite observations, and this eruption may have produced the first observations of an acoustic wave in the mid-stratosphere that can be measured from space.

Wed, 25 May, 15:40-15:46 CEST

Session AS1.7

Evolution of deformation and seismicity on the Reykjanes Peninsula, preceding the 2021 Fagradalsfjall eruption, Iceland

The 2021 effusive eruption at Mt. Fagradalsfjall in Iceland was preceded by a 14-month long period of volcanotectonic unrest. This comprised both significant ground deformation and intense seismicity. Geologists investigate this period of intrusive activity, where seismicity shifted along various regions across the Peninsula, in relation to magma migration, triggered seismicity and tectonic earthquakes.

Thu, 26 May, 08:50-08:57 CEST

Session GMPV9.1

<u>Post-2015</u> caldera morphology of the Hunga Tonga-Hunga Ha'apai caldera, Tonga, through drone photogrammetry and summit area bathymetry

Did previous historical eruptions, including ones from 1988 and 2009, play a role in the violence of the 2022 Hunga Tonga eruption? This research assesses ocean floor changes to support forecasting future volcanic hazards at Hunga and other nearby large submarine volcanoes.

Thu, 26 May, 08:54-09:01 CEST

Session ITS3.6/SM1.2