



Spectral analysis of Lamb wave signals from 2022 Hunga Tonga Eruption

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Abstract:

The ~200 MT Hunga Tonga volcanic eruption of 15 January 2022 was the largest explosive event of the digital era. Analysis of the main blast signatures observed globally has immense value for large-yield (>1 MT) explosive detonation monitoring. We present preliminary results of aggregation, processing, and spectral analysis of Lamb wave signals from the eruption recorded by regional pressure sensor networks and the infrasound network of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) International Monitoring System (IMS).