

Near-Field and Far-Field Studies Using IMS Infrasound Data

Infrasound technology gained in the course of the last two decades a key role in monitoring several natural and man-made events, highlighting how much information about the source, as well as about the source-to-station propagation can be embedded in an infrasound signal. This concept applies in particular, but not exclusively, to volcano monitoring, where the understanding of all the source phenomena proceeding an eruption might play a special role in the issuance of early warnings, which would help mitigate the impact on population, aviation and goods and increase resilience. How much the source information is preserved in an infrasound signal when moving apart from the source? Is the source information retrieved in near-field still embedded and retrievable also from signals recorded in far-field? How much a far-field monitoring can support the issuance of early warnings, in particular for volcano monitoring? The Department of Earth Sciences, University of Florence, Italy, is currently developing a comparison between near-field and far-field records in the framework of a vDEC Project: the first results of this study will be presented.

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