ID: Type: **Poster**

Infrasound Association at the IDC: Advances and Performances

Global Infrasound Association algorithms are an important area of active development at the IDC. These algorithms are incorporated into the automatic processing system for verification technologies, with a focus on enhancing association and signal characterization. The overall objective is to reduce the number of associated infrasound arrivals that are rejected from automatic bulletins when generating the Reviewed Event Bulletins (REB), and hence reduce IDC analyst workload. The proposed model is a fusion of seismic, hydroacoustic and infrasound processing built on a unified probabilistic framework incorporated into NETVISA, a Bayesian approach to network processing. In this work, the focus is on infrasound specific efforts aimed at optimizing association criteria based on knowledge acquired by IDC over 7 years, and on seismo-acoustic events specificity. The performances of the association algorithms are discussed in comparison with IDC bulletin production at automatic stage and after review process. IDC results for the European region are also compared with the European Infrasound Bulletin (EIB) [Pilger et al, SnT2017]. The EIB focuses on infrasound activity recorded over Europe and collected during the ARISE project (Atmospheric dynamics Research InfraStructure in Europe). Data from the EIB were recorded since 2000 by 24 European infrasound arrays including IMS stations.

Primary author: MIALLE, Pierrick (CTBTO Preparatory Commission)

Presenter: MIALLE, Pierrick (CTBTO Preparatory Commission)

Track Classification: 1. The Earth as a complex system