Application of the Short Time Statistical Analysis In Significant Increasing Of The Signal To Noise Ratio Of Infrasound, Acoustic, Hydroacoustic and Seismic Signals

LIGHTNING TALK

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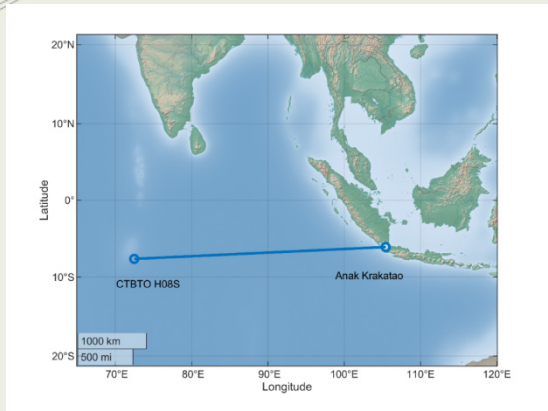

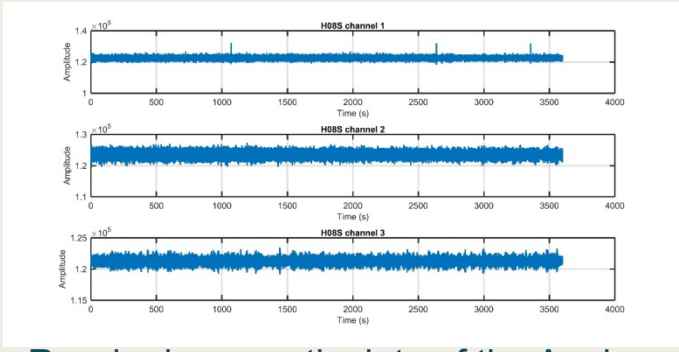

Raw hydroacoustic data of the Anak Krakatao volcano eruption measured at H08S.

- Our poster is about application of the statistical filter in de-noising of the hydroacoustic, seismic, acoustic and electromagnetic (radar) signals.
- Signal to Noise Ratio (SNR) is significantly improved in the range from about 40 dB through something less from 10 dB, in case of radar signals.
- For the first time, are filtered hydroacoustic data were registered at the CTBT IMS H08S measuring station during the eruption of the Anak Krakatao volcano.
- Because the collapse occurred above the sea surface and not completely underwater, its acoustic signature was too weak to be detected at great distances. This explains why H08S did not record direct collapse signals.
- Although the hydroacoustic signal was very weak, thanks to the new signal filtering method and significant increase in SNR, the hydroacoustic signal of the collapse volcano Anak Krakatao became visible.
- If you want to find out more, come over for a chat in front of our poster No. **73**.