

Detection and time variations of infrasound sources using arrays deployed in Lützow-Holm Bay, Antarctica

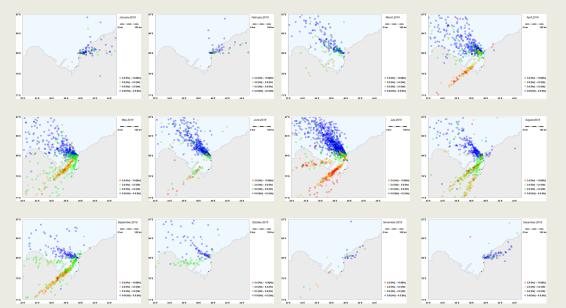




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- Come over to see our poster if you would like to find out more about:
- A large number of infrasound sources were detected and many of them located between northward and north-westward directions from the arrays.
- These source events (N-NW directions) are generated within the Southern Indian Ocean to the northern part of LHB with frequency content of few seconds; that is the microbaroms from oceanic swells.
- From austral summer to fall, sources orientation are determined to be north-eastward. These might be related to the katabatic winds from continental area.

- Several sporadic infrasound events during wintering seasons had predominant frequency content of few Hz, which are clearly higher than microbaroms.
- On the basis of a comparison with sea-ice and glacier distribution form MODIS satellite images, these highfrequency sources were considered to be cryoseismic signals associated with cryosphere dynamics.
- Infrasound could be a useful tool for monitoring surface environment involving climate change in the coastal area of Antarctica.



Distribution of the source locations of the detected infrasound signals by PMCC analysis (from January 01 to December 31, 2019, represented by separated panel for one month), combined by both the SYO and LNG arrays. Colors representing in right hand side for each panel correspond to the central frequency [Hz] for each detected source event.

