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Ocean thermometry



- Argo floats have drastically improved the sampling
- They still suffer from the aliasing effects and have no data below 2000 m



Measuring the ocean temperature acoustically



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Replacing active sources with earthquakes



📟 BBC News

Protecting whales from the noise people make in the ocean

Dr Jessopp was recently involved in a research project to study the effects of marine seismic surveys on animals such as whales and dolphins. Feb 28, 2020





PUTTING AN END TO NUCLEAR EXPLOSIONS



Application to Eastern Indian Ocean



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Higher Signal-to-Noise Ratios (SNR) of CTBTO hydrophone data





The CTBTO hydrophones show higher SNRs and record much more *T*-wave data from small earthquakes than DGAR.



Consistent results between DGAR and H08S2



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But much more data from H08S2



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But much more data from H08S2







6-month periodicity







6-month periodicity







~10 days variations







Conclusions

- We confirm that hydrophones usually have better performance of recording T waves than T-phase stations, in terms of SNR.
- H08S2 and DGAR show consistent SOT results.
- Hydrophone system is a key component of global application of SOT.

