

Ocean Ambient Noise Analysis using the OOI Acoustic Data

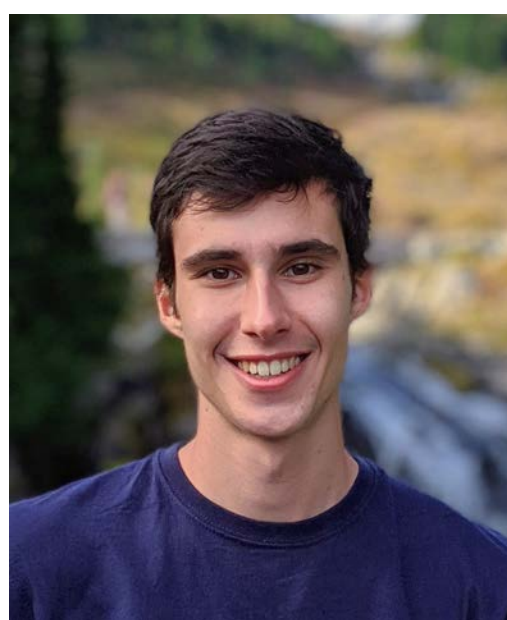
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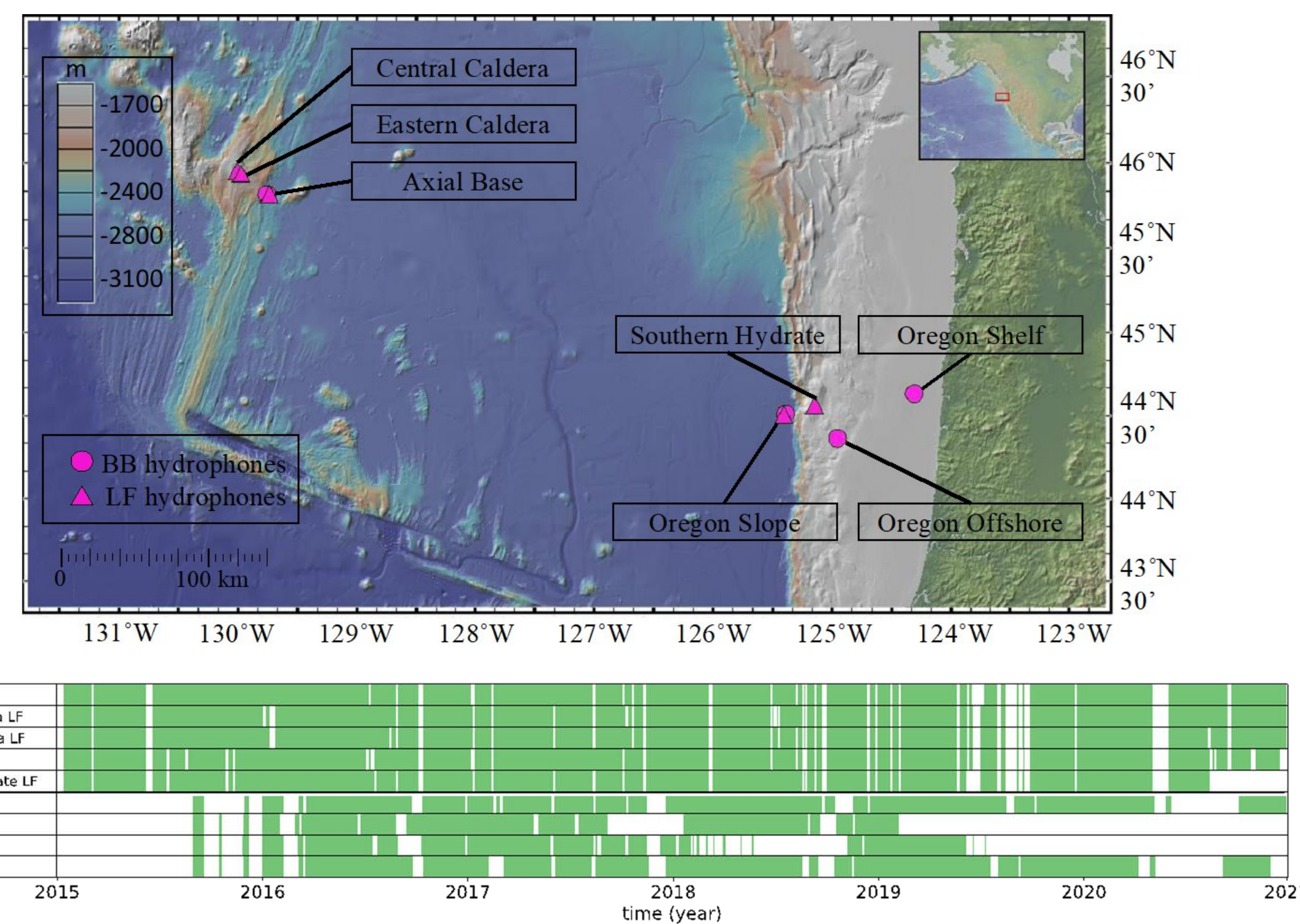
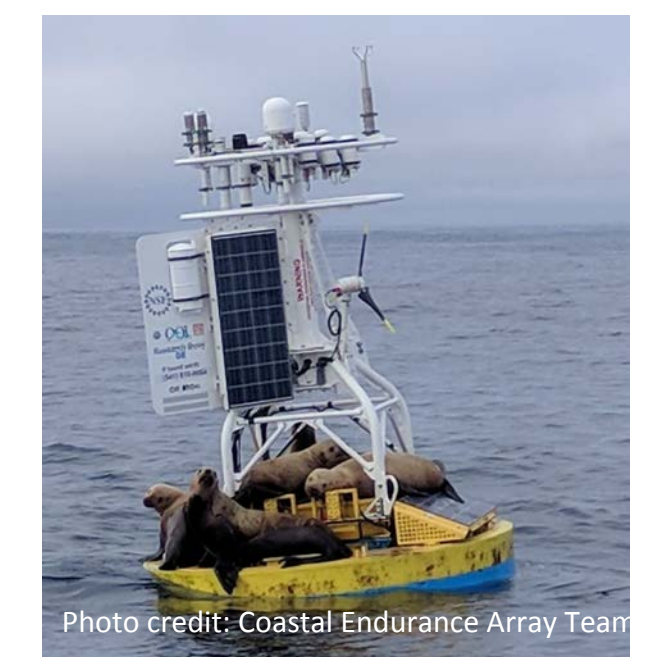
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Goal: To characterize the ocean ambient sound generated by wind and rain and understand the overall trend in the ocean ambient noise

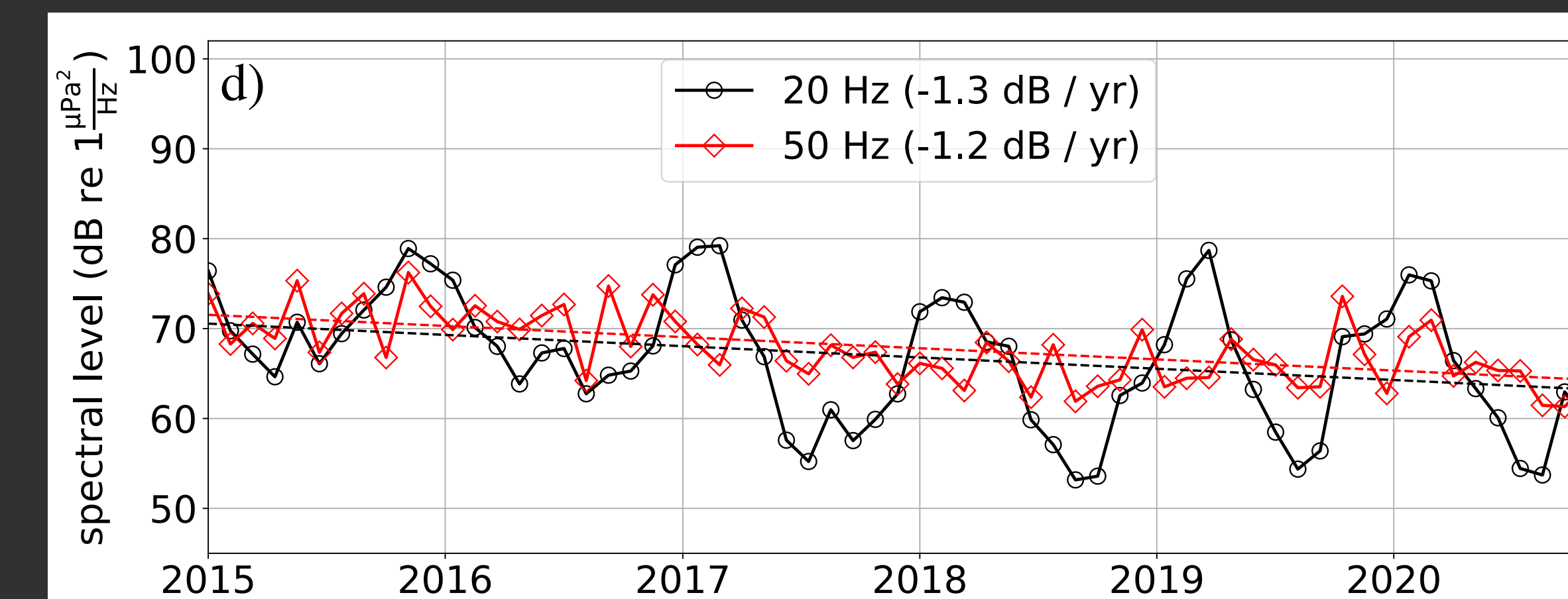
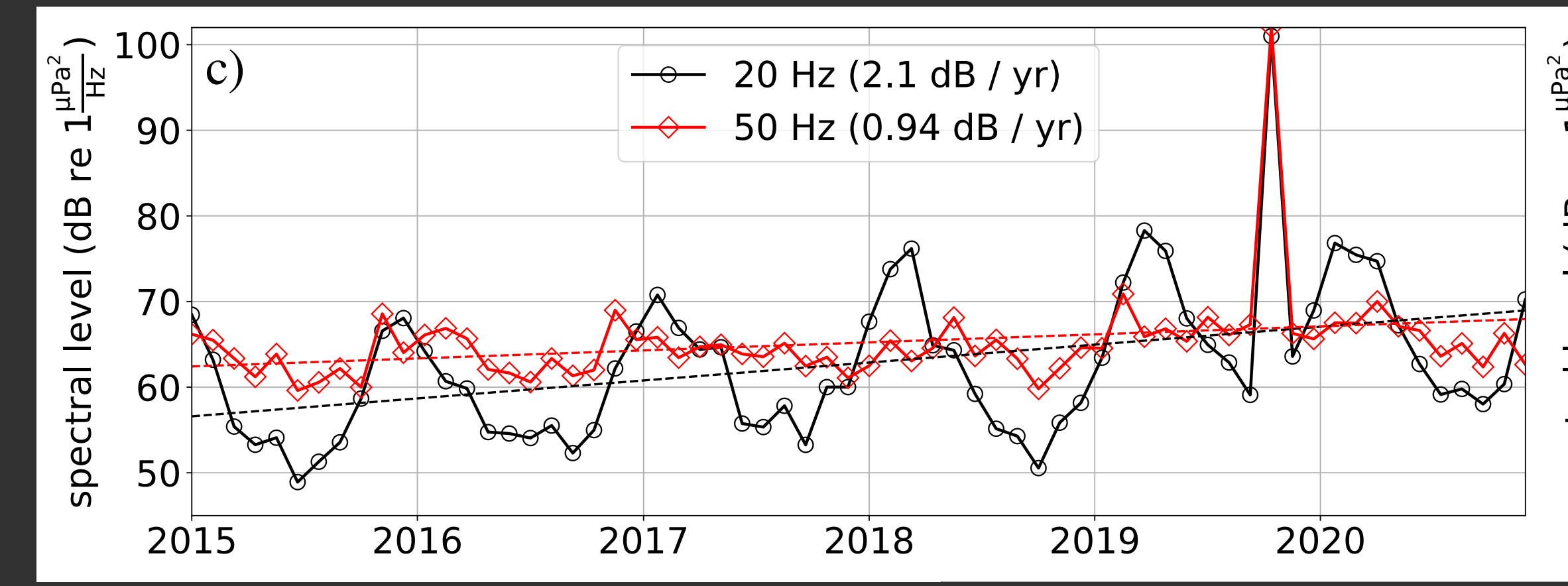
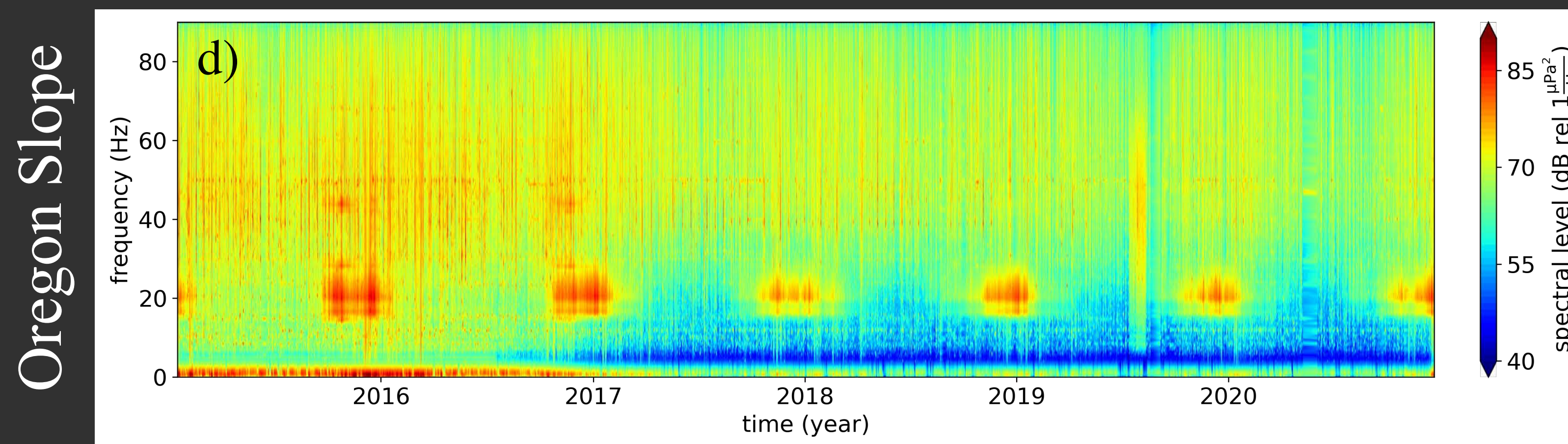
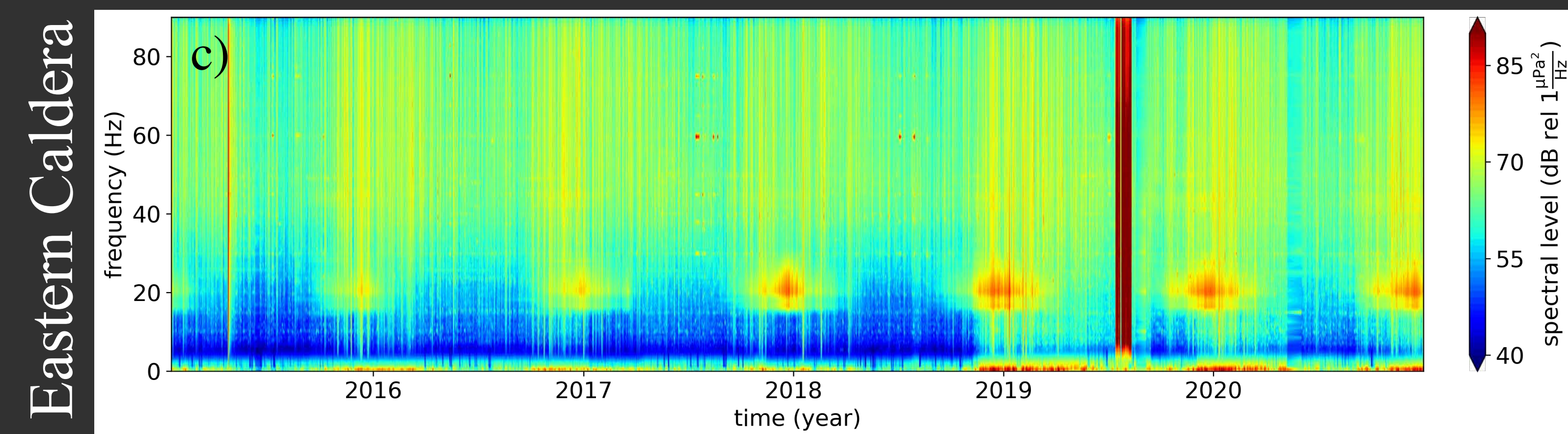
Data: OOI data at the Coastal Endurance Array and the Axial Seamount Array

- Acoustic data is measured by the OOI broadband hydrophones
- Meteorological data is measured by the OOI surface buoys

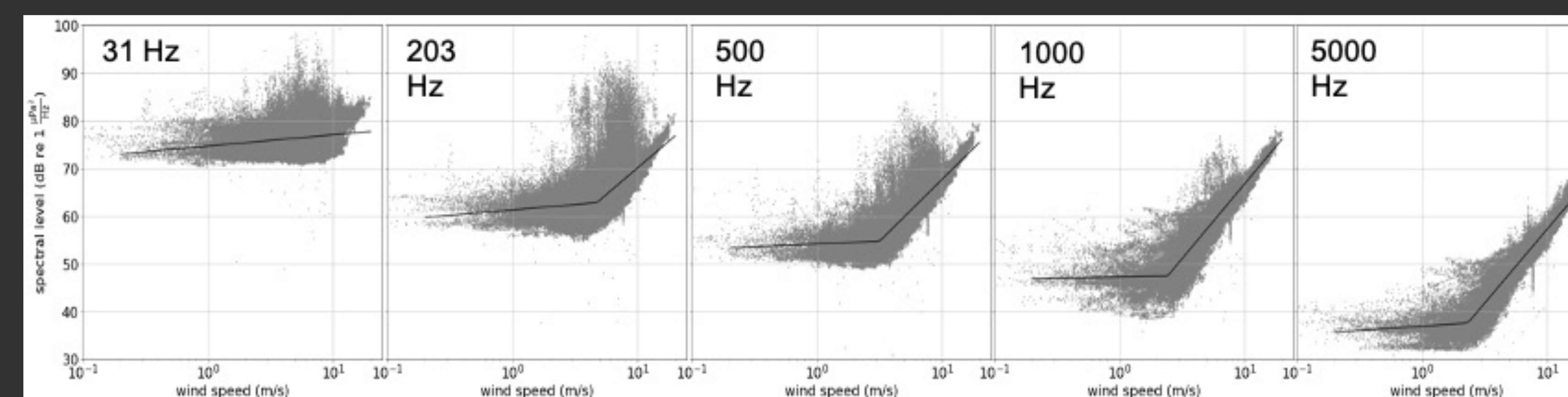


6 years of acoustic data is used to characterize the ocean ambient noise. Our key findings are:

- The ocean noise is NOT increasing homogenously in the NE Pacific Ocean.
- Wind- and rain-generated broadband noise has a nonlinear relationship with wind speed and rain rate.



Noise Level vs Wind Speed



Take a picture to download the full paper of our rain noise analysis



Take a picture to download the full paper of our wind noise analysis



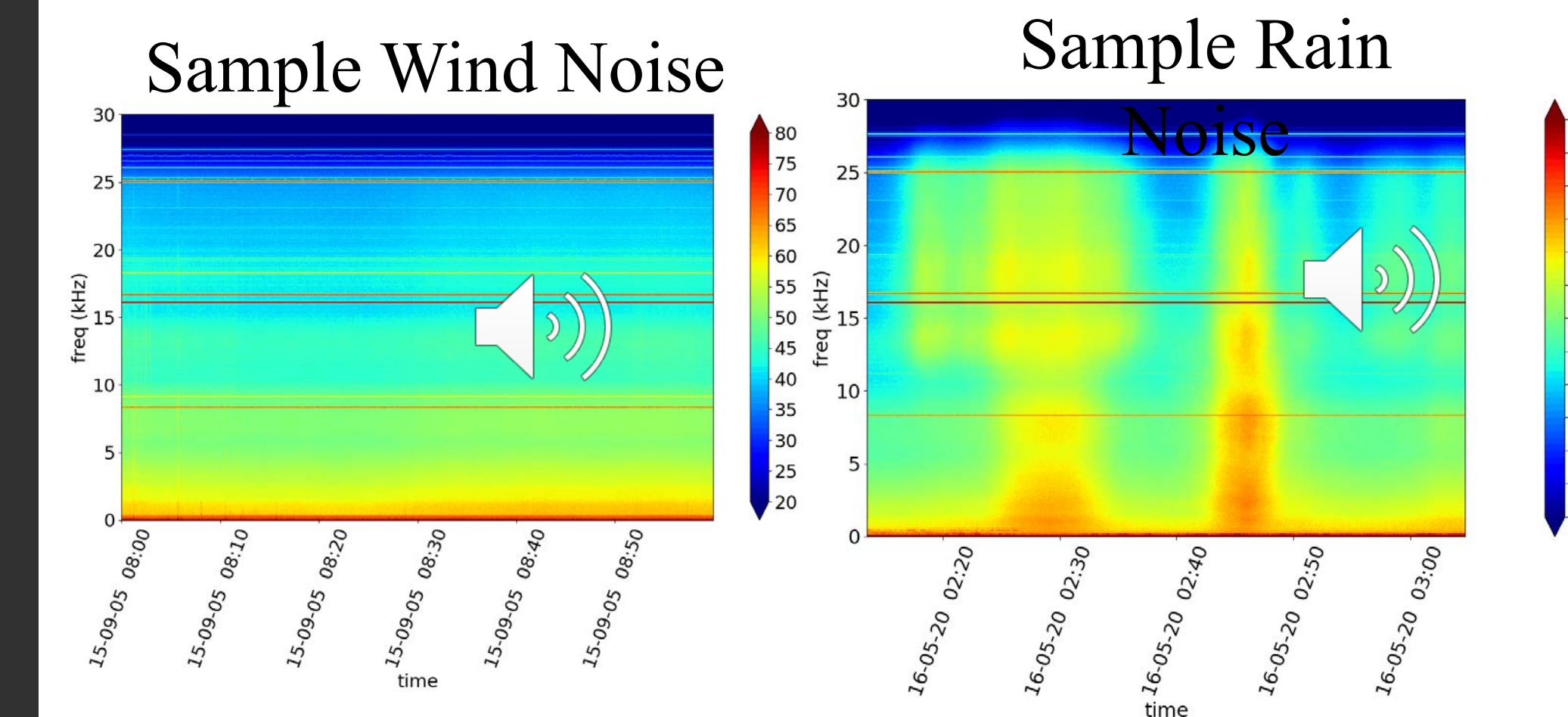
Take a picture to download the full paper of our long-term noise analysis



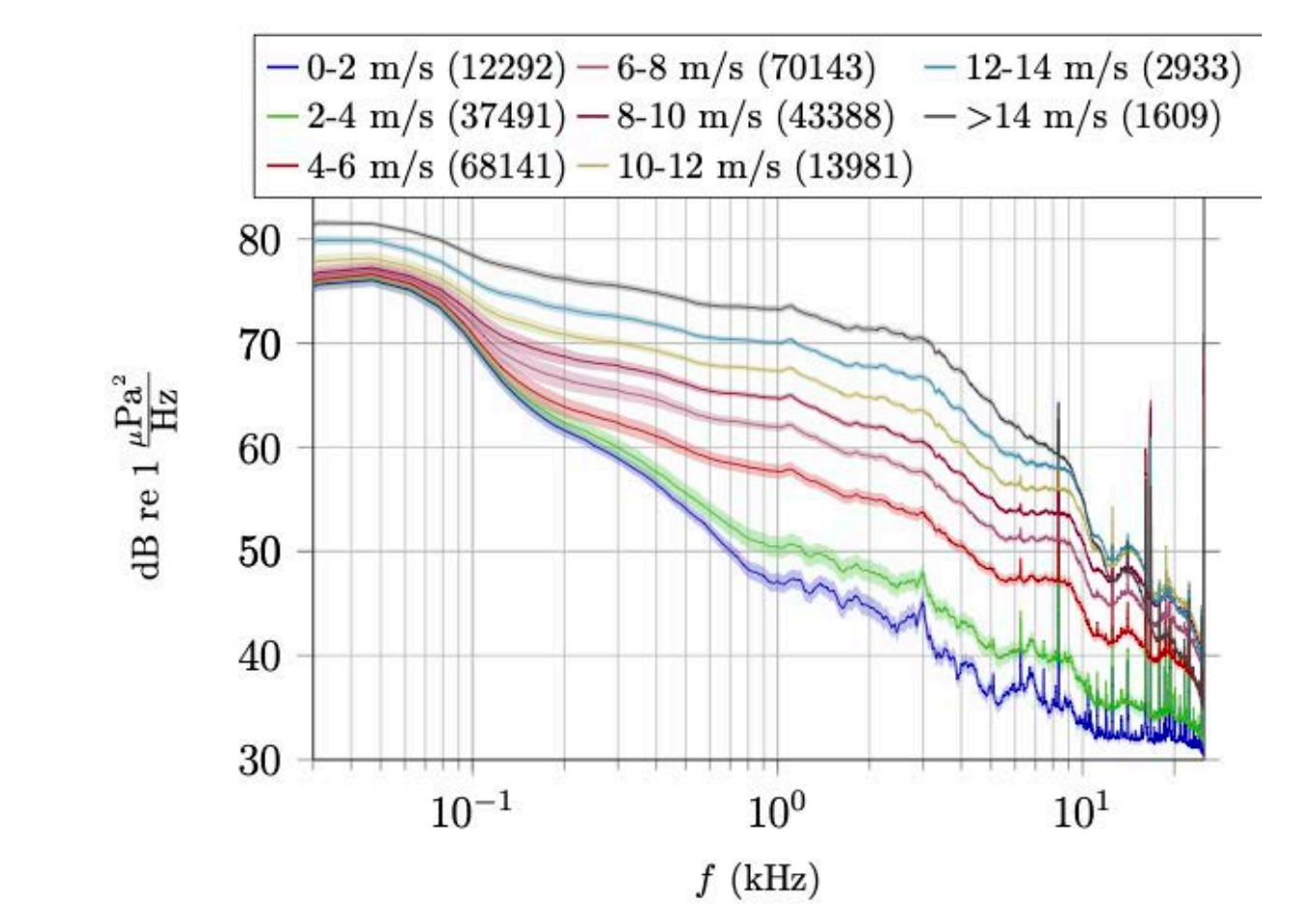
A [Python toolbox](#) for analyzing the OOI acoustic data



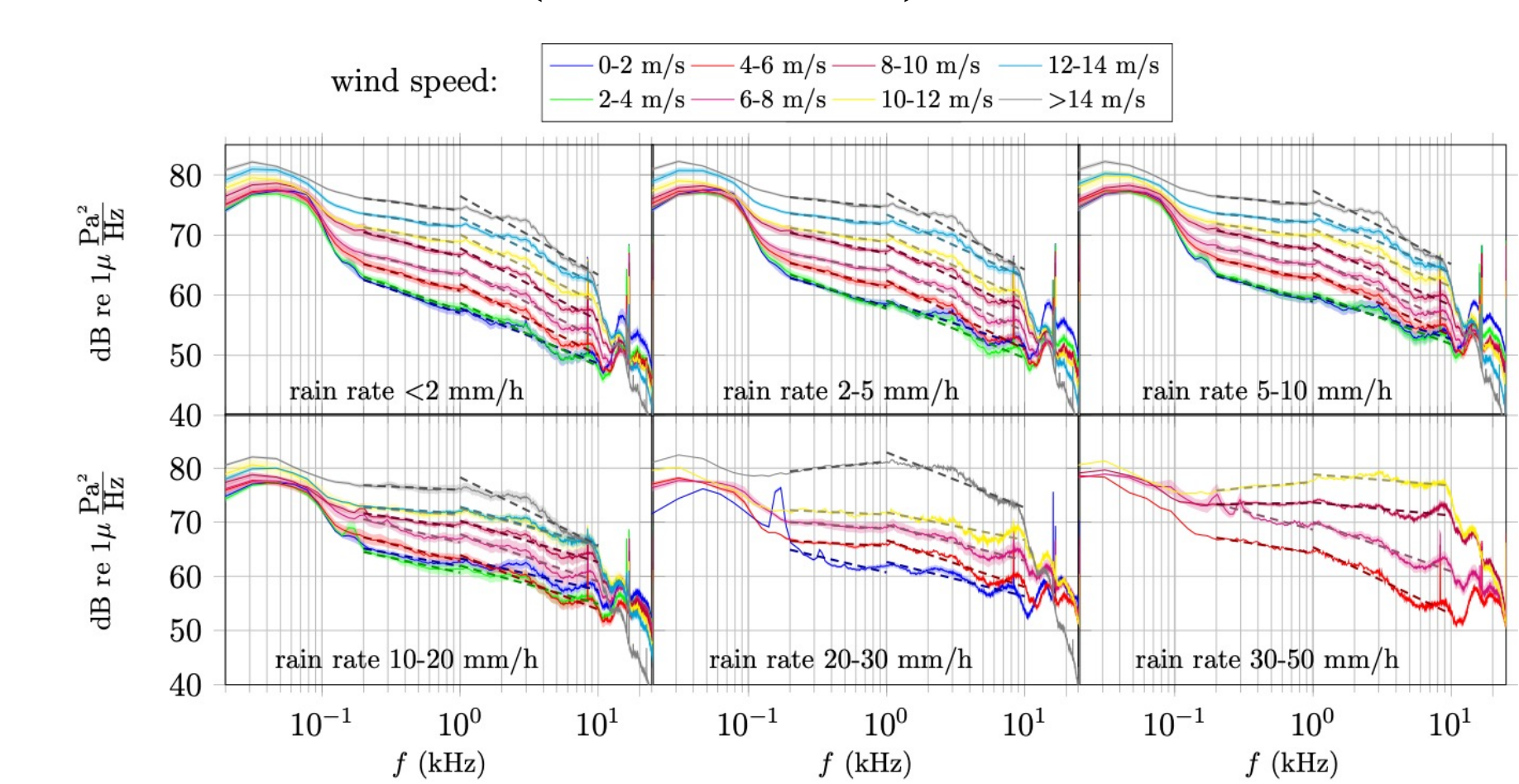
Take a picture to download the OOIPY package



Wind (only) Noise



Rain (and wind) Noise



Comparing with other studies

