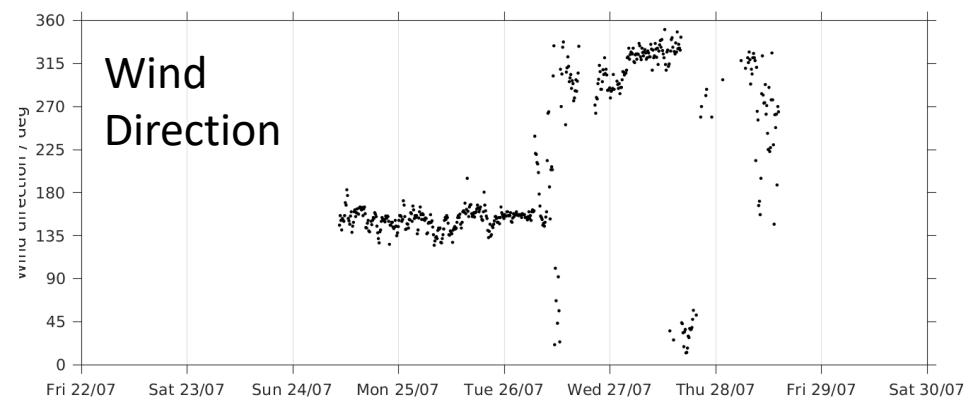
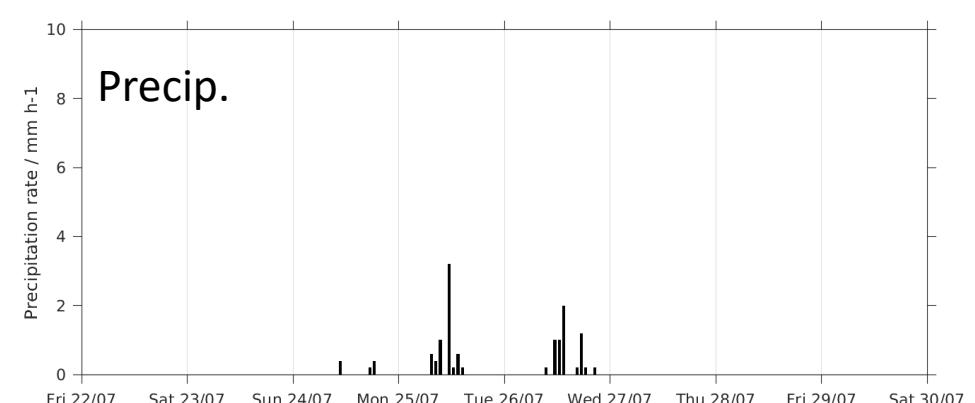
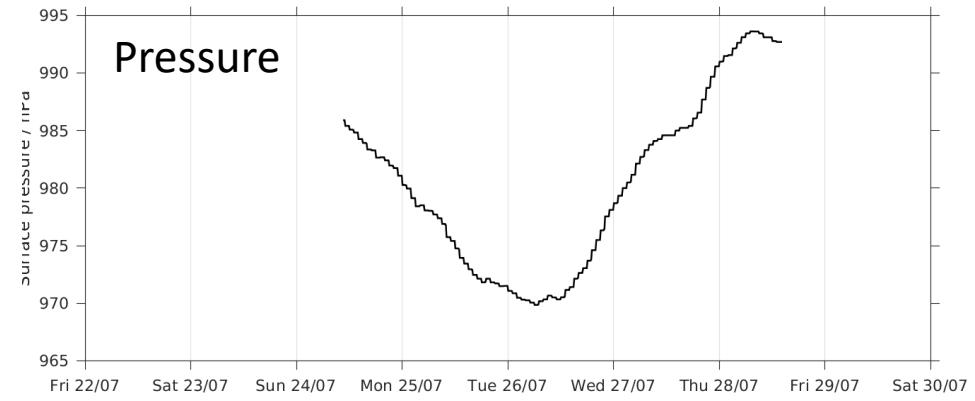
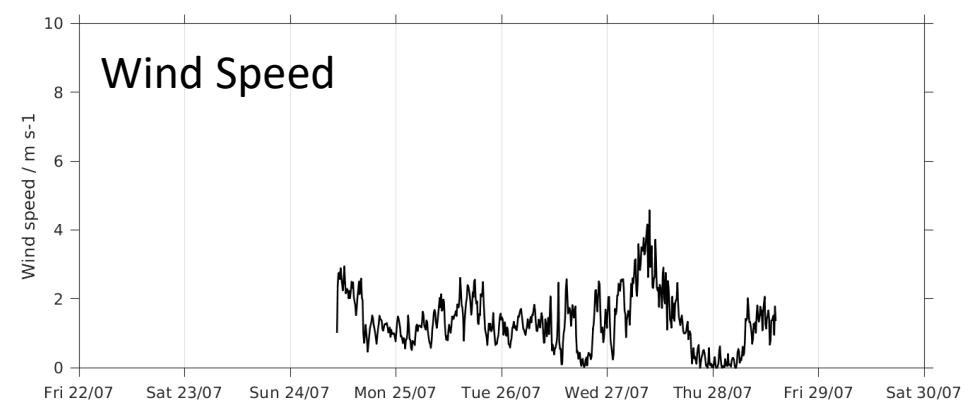
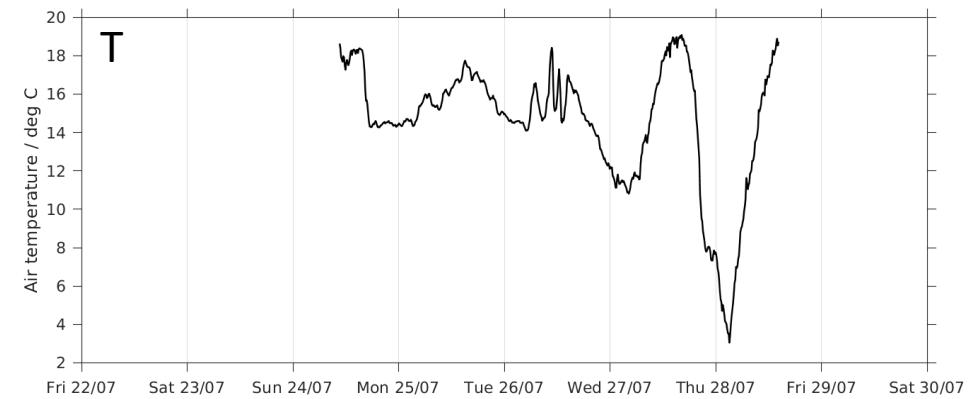
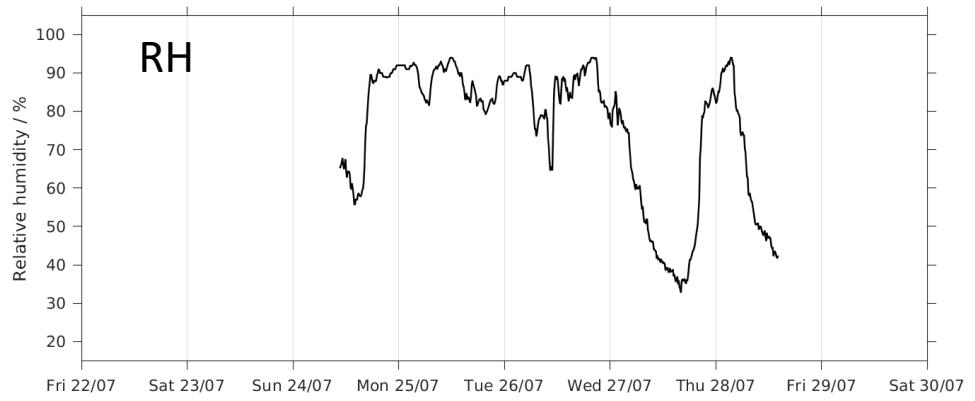




Summer School Starmoen
24-31 July 2022



Meteorological Instruments









SkySight

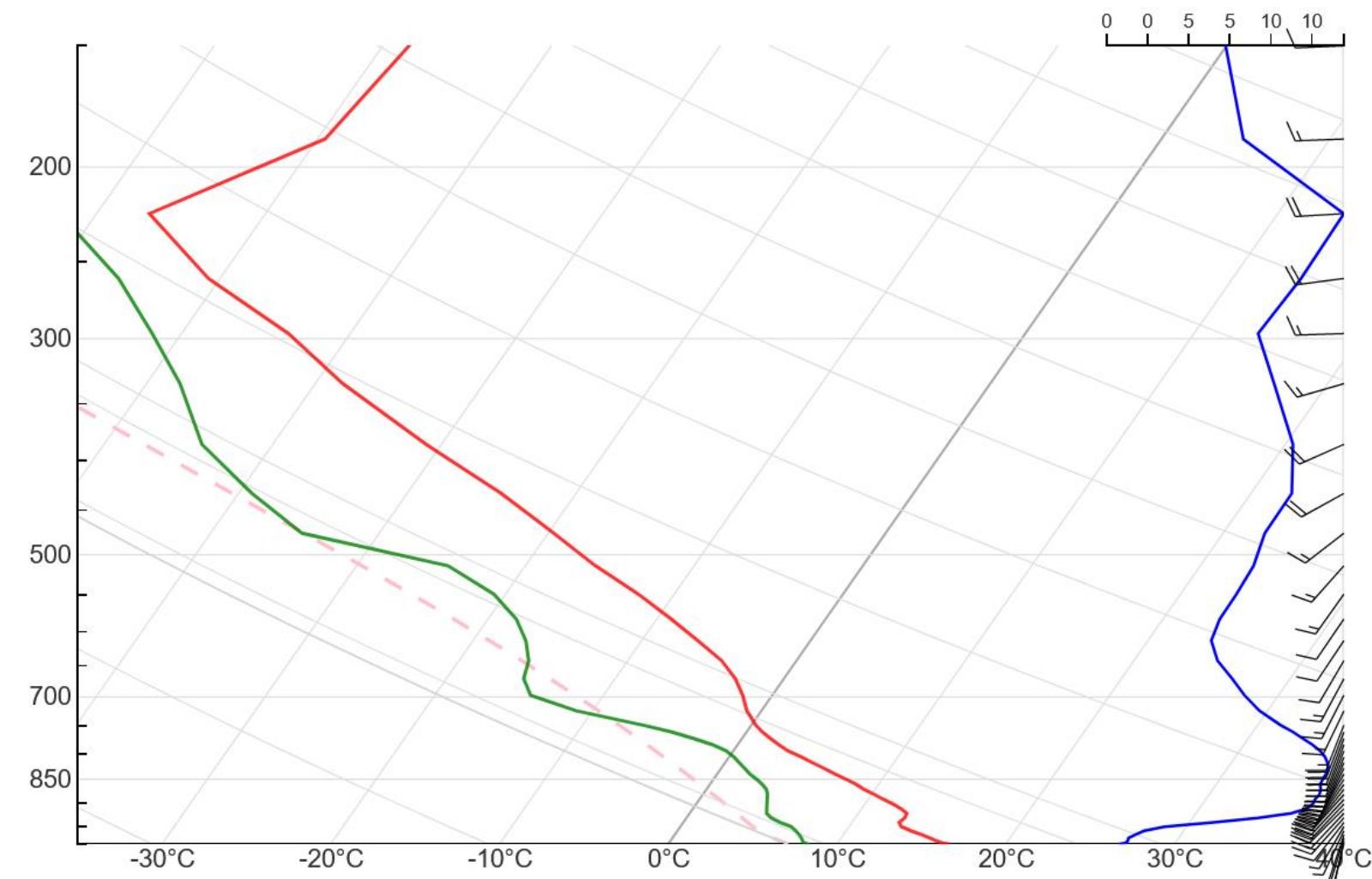
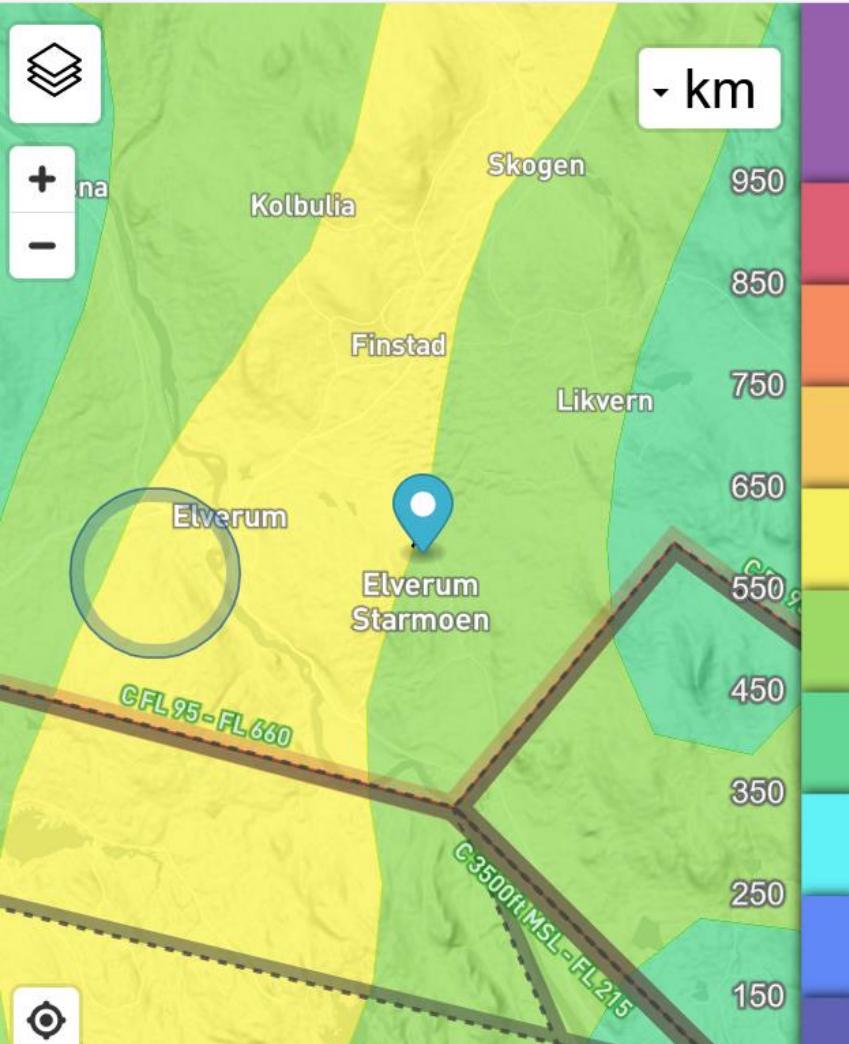


Sat 30 Jul



08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00

CEST

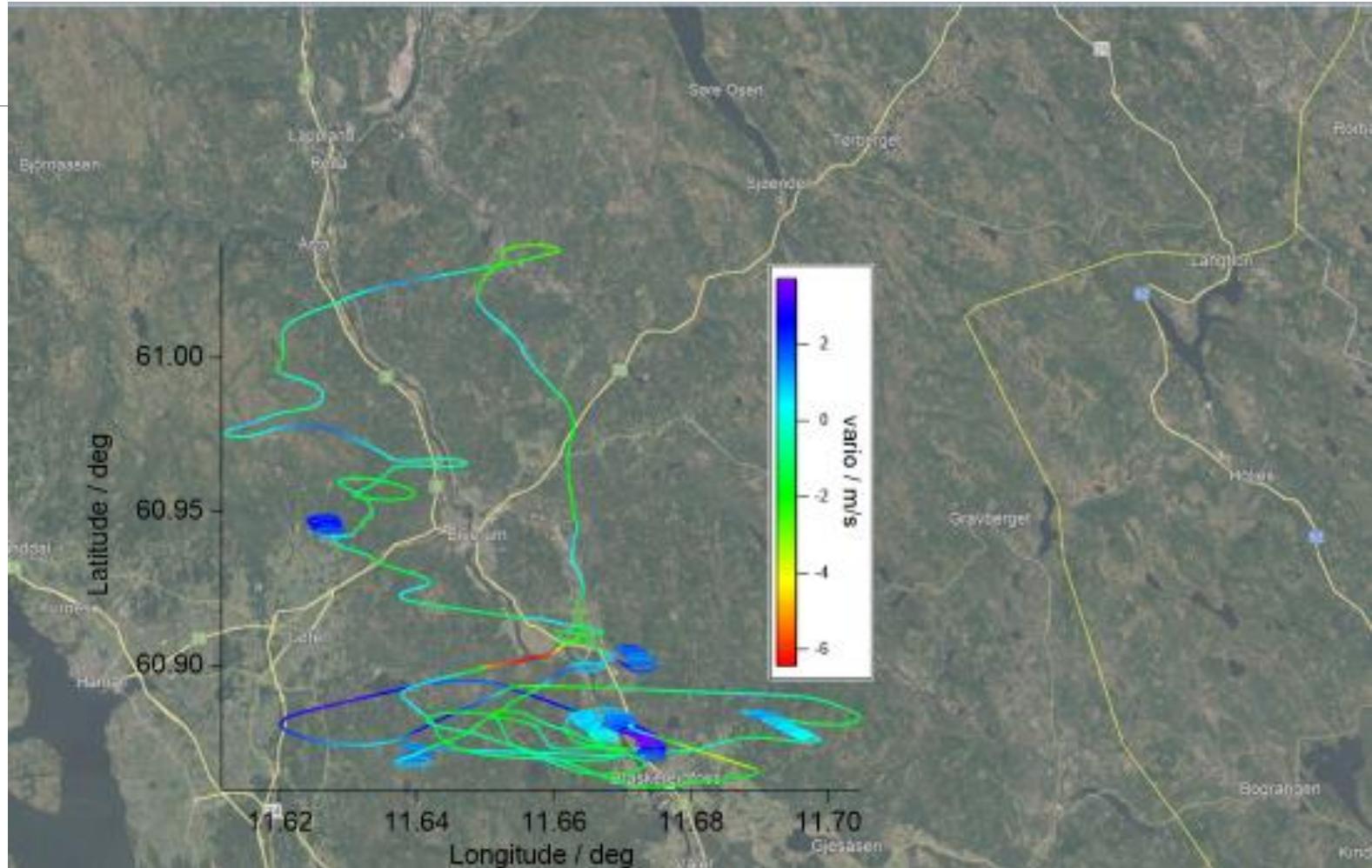
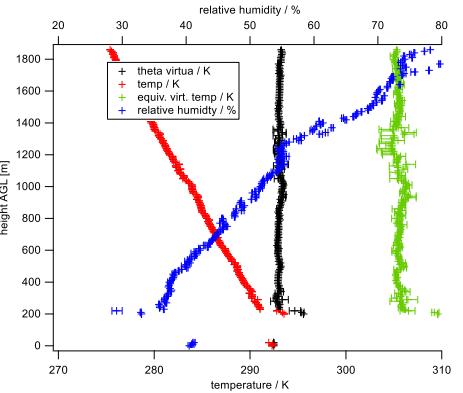




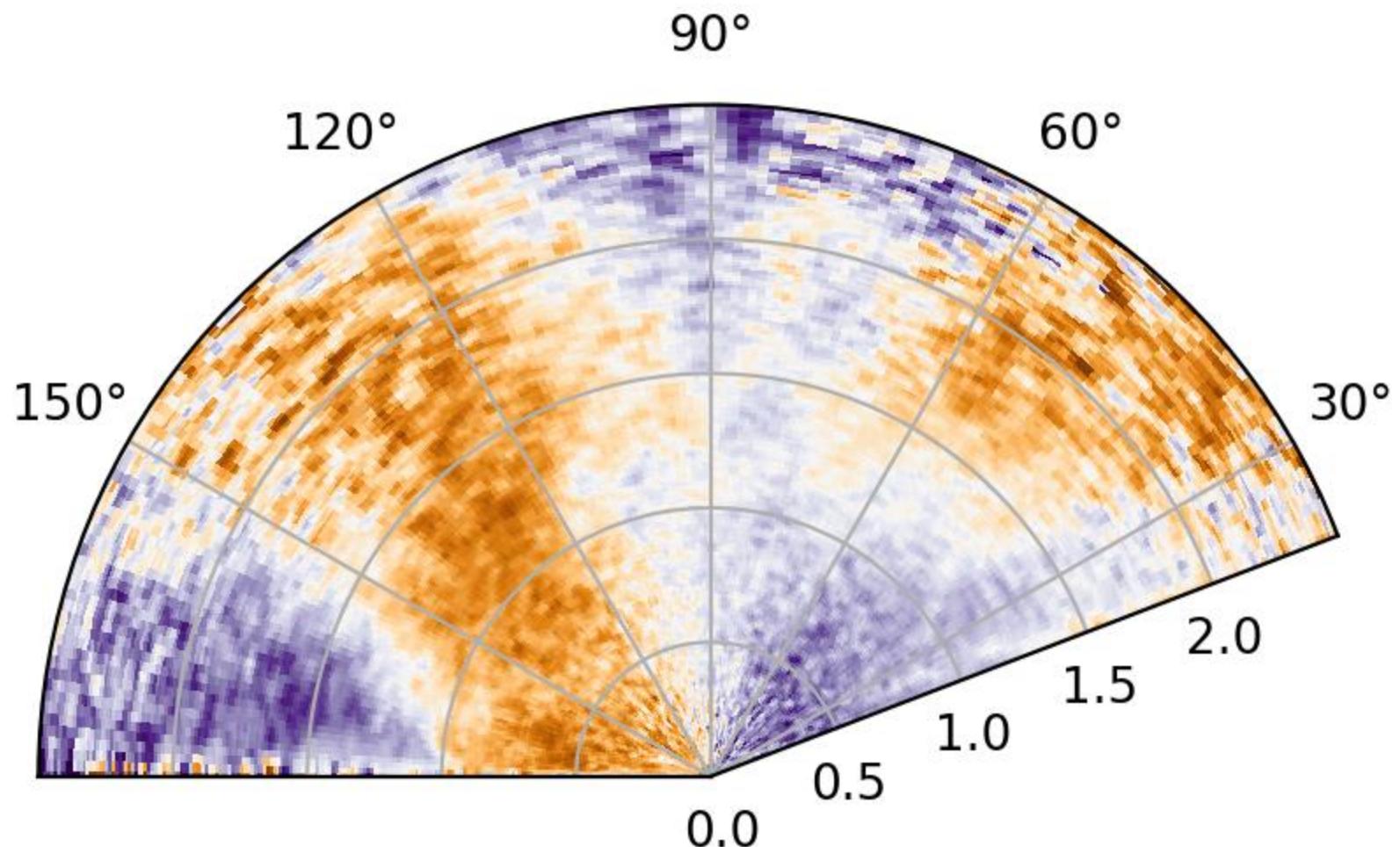


Glider studies

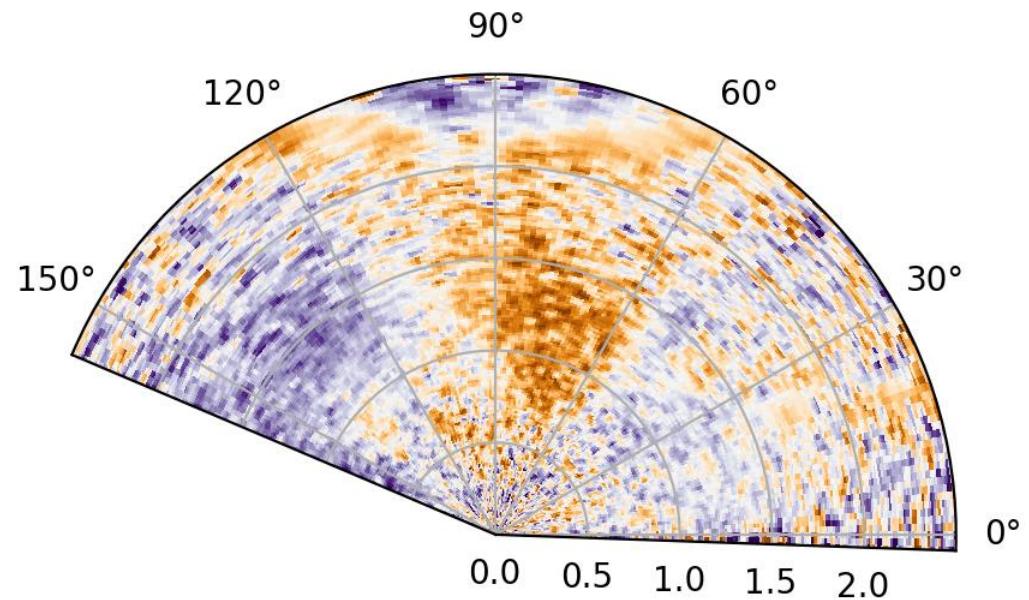
- iMet Instruments (pressure, RH, Temp) on 3 Gliders



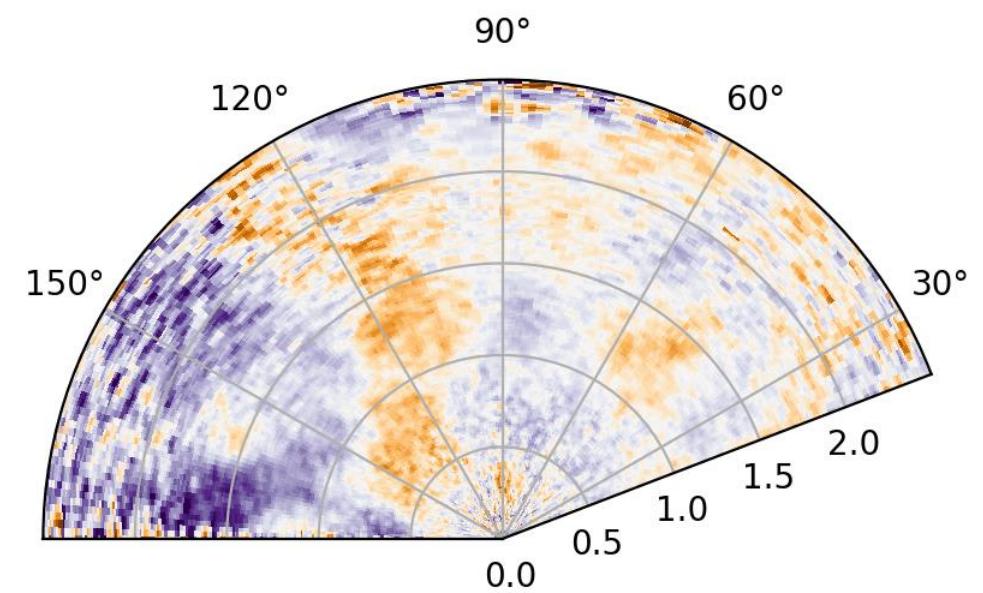


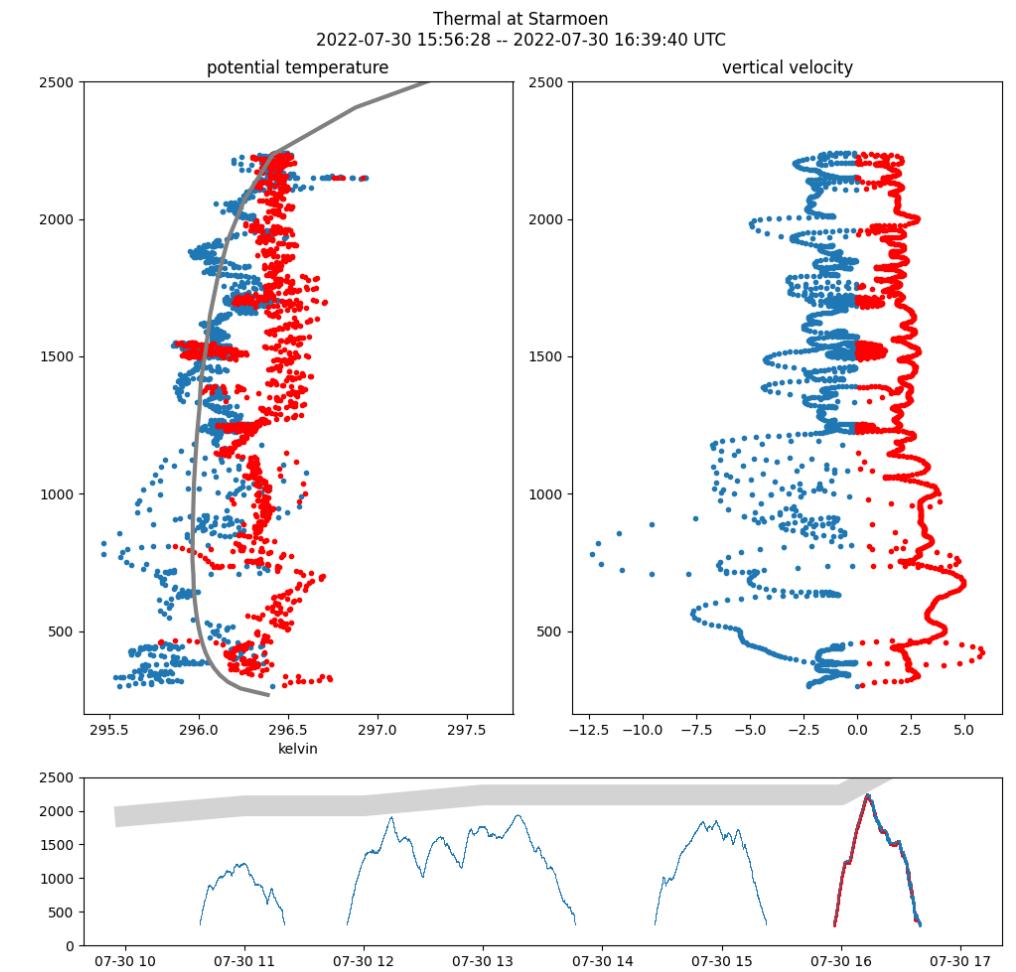
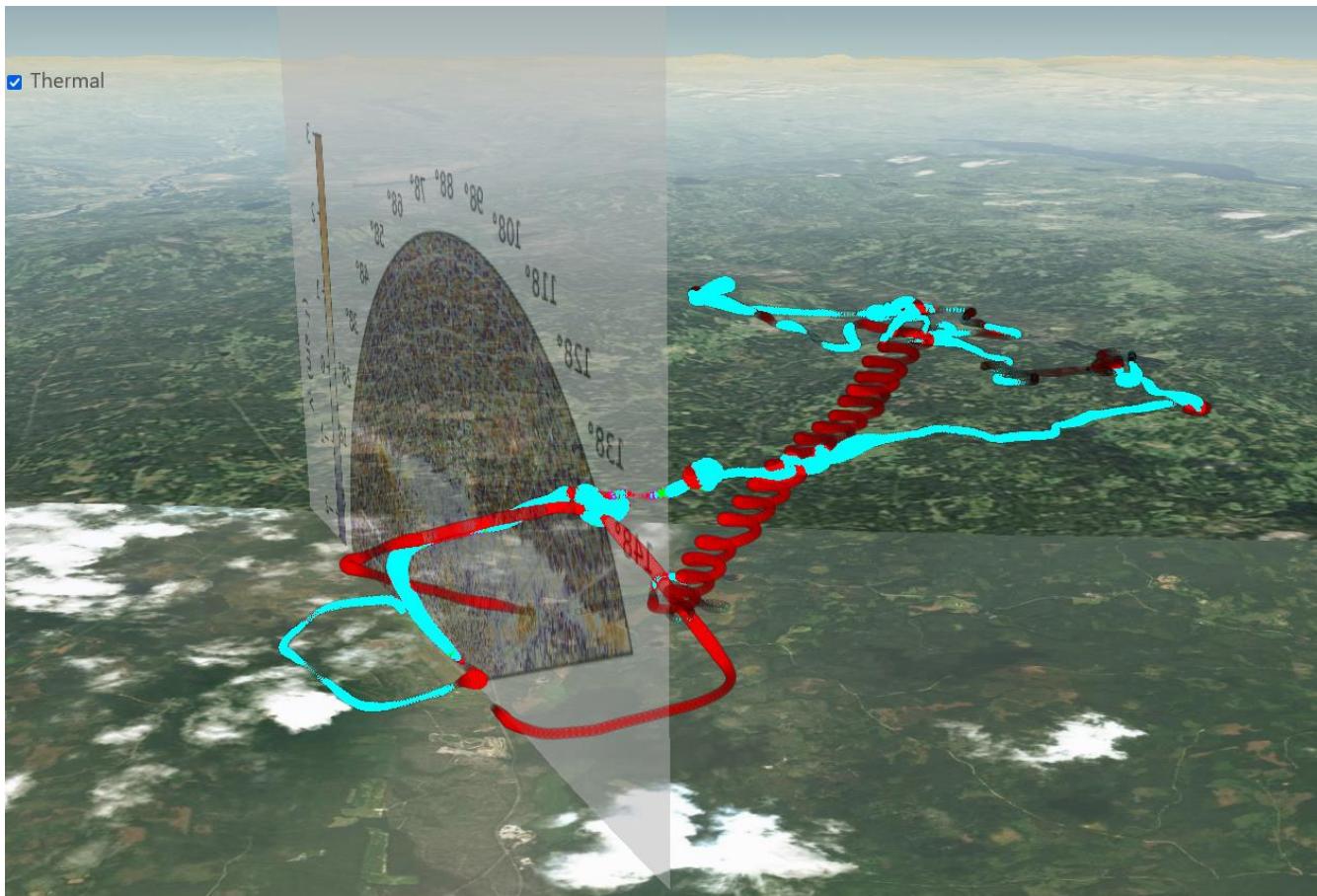


wls34:2022-07-29 14:29:00

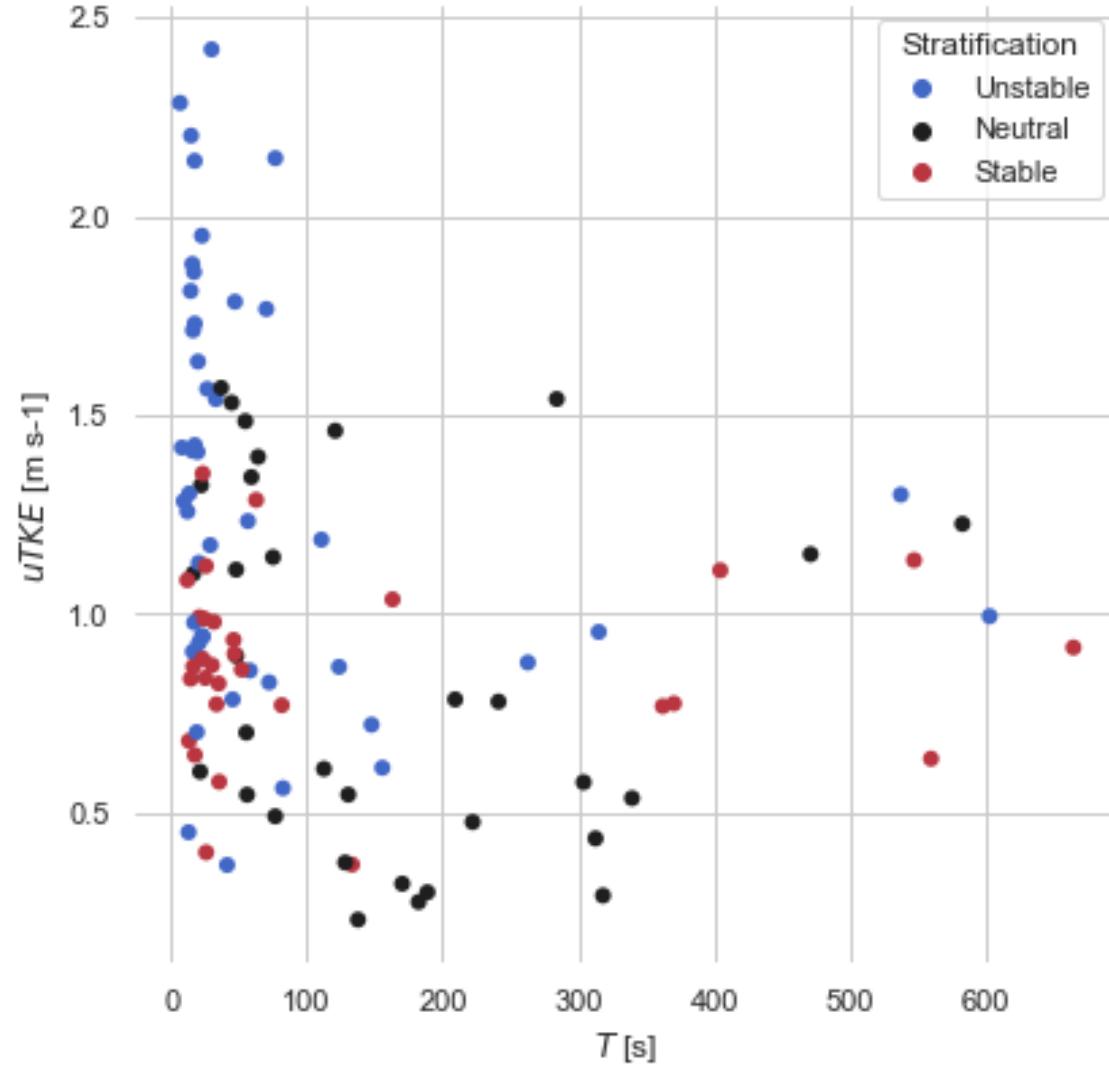


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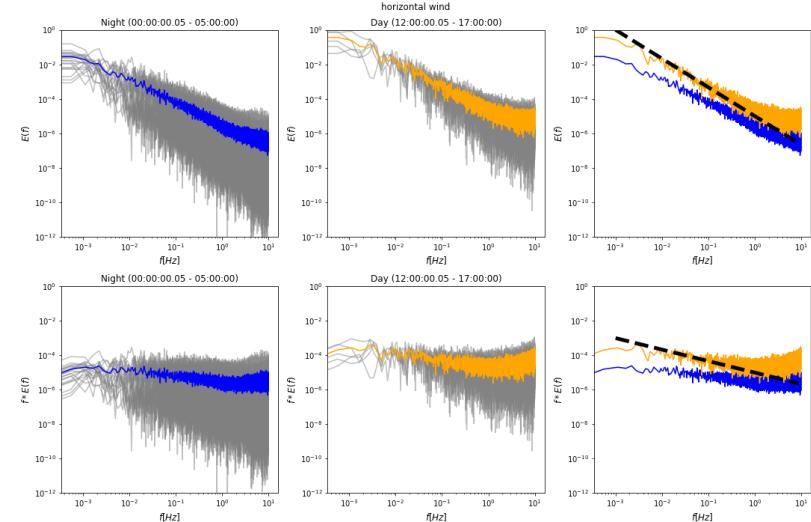
Statistical Turbulence Techniques



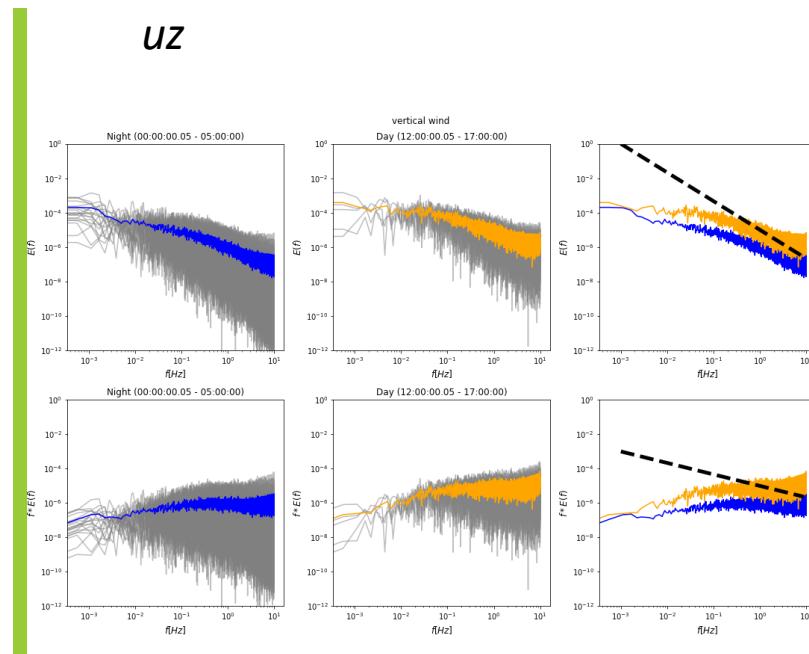
Integral
Turbulent Time
Scale with the
Autocorrelation
Function

Fourier Spectra

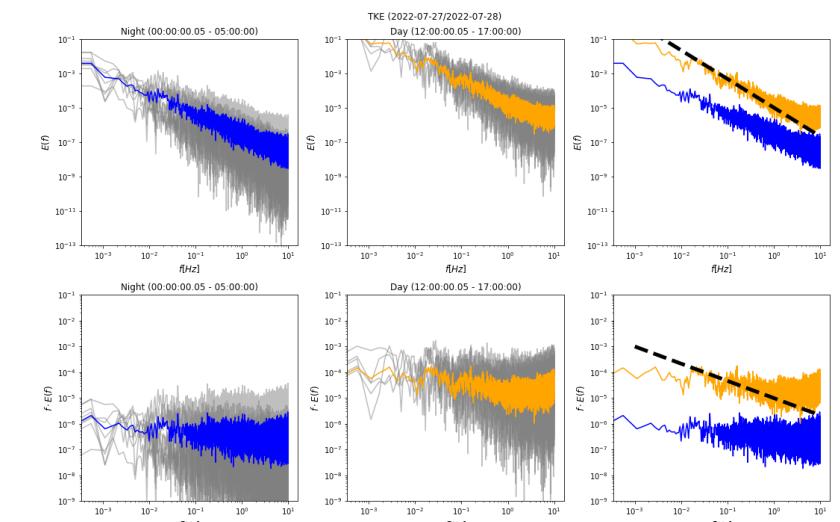
UX



UZ



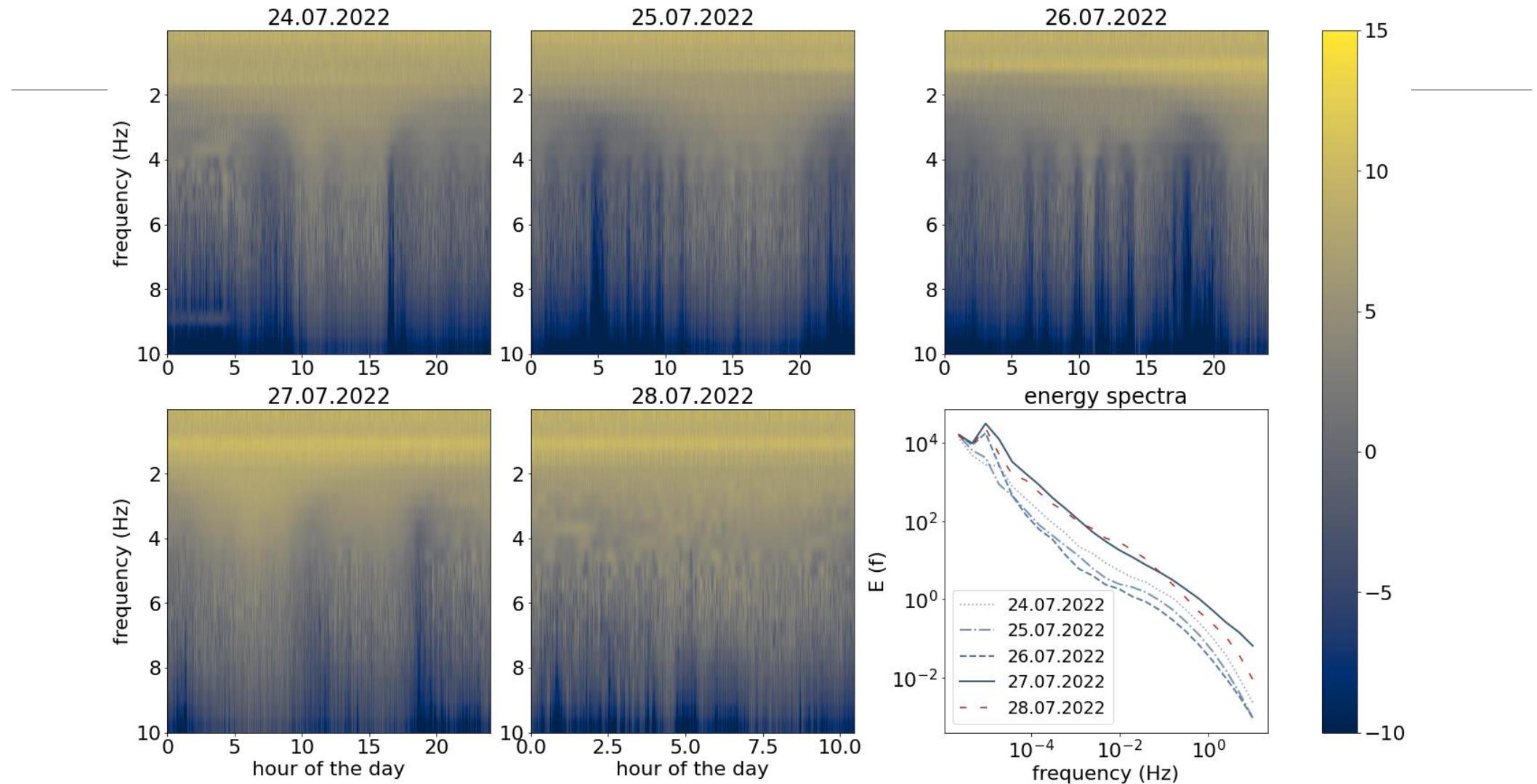
TKE



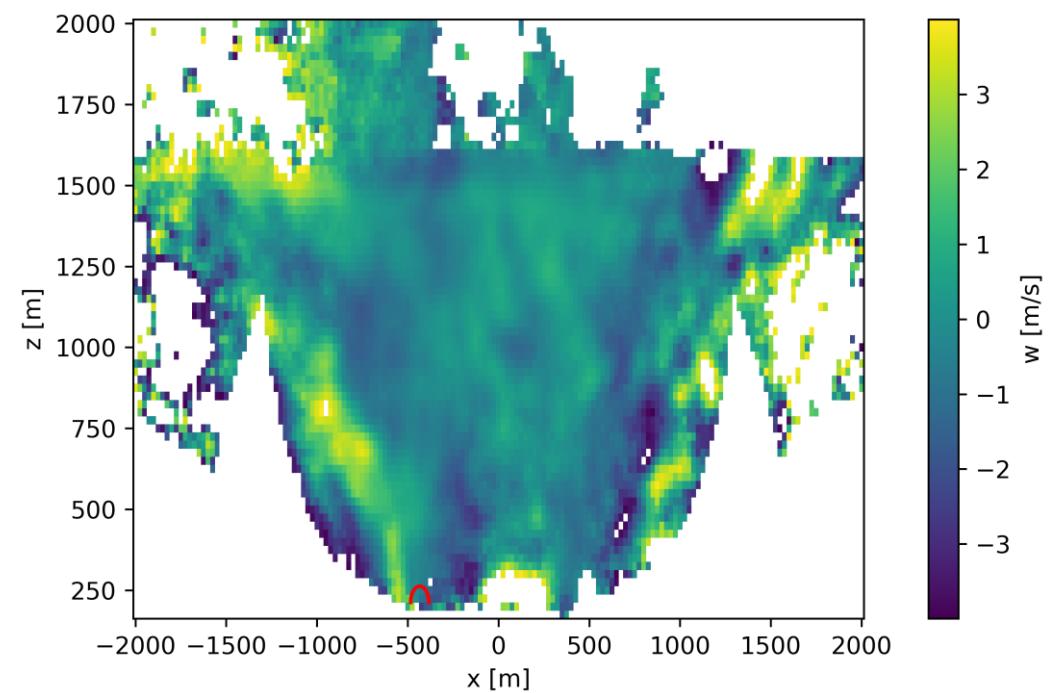
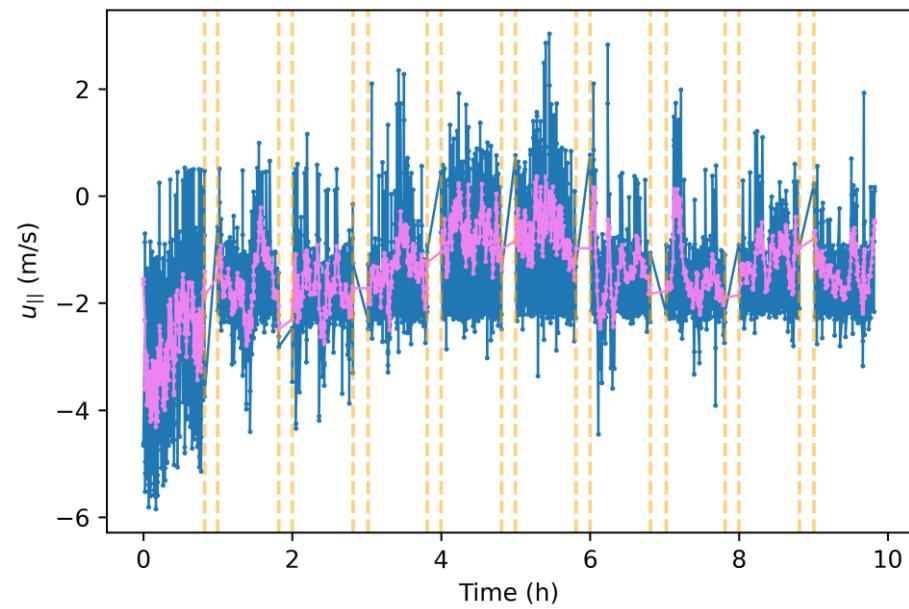
Spectral Analysis

Wavelet Analysis

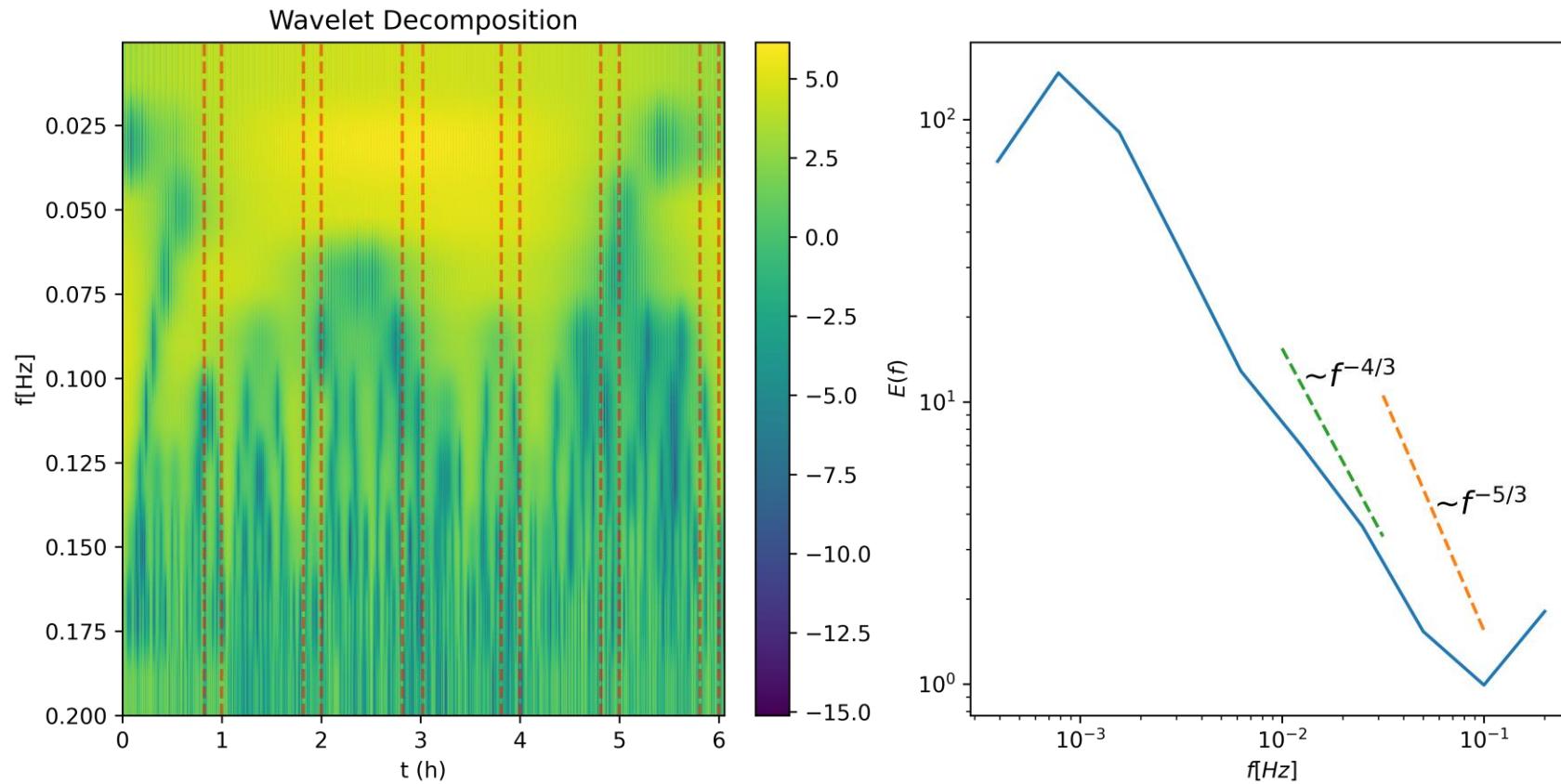
Complex Morlet Wavelet: $w'T'$



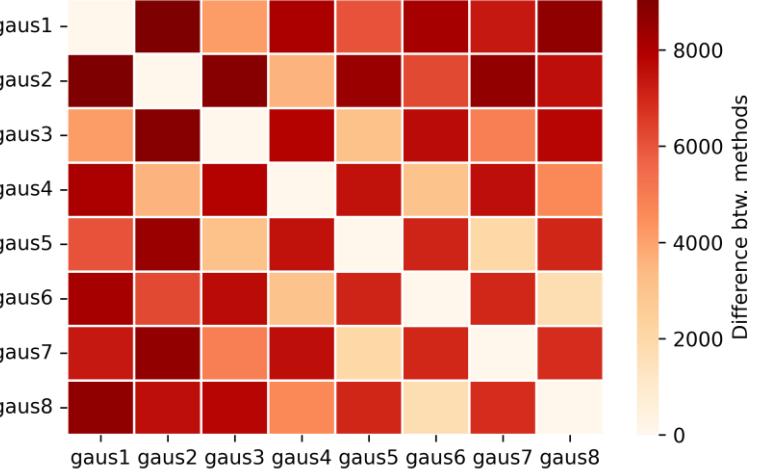
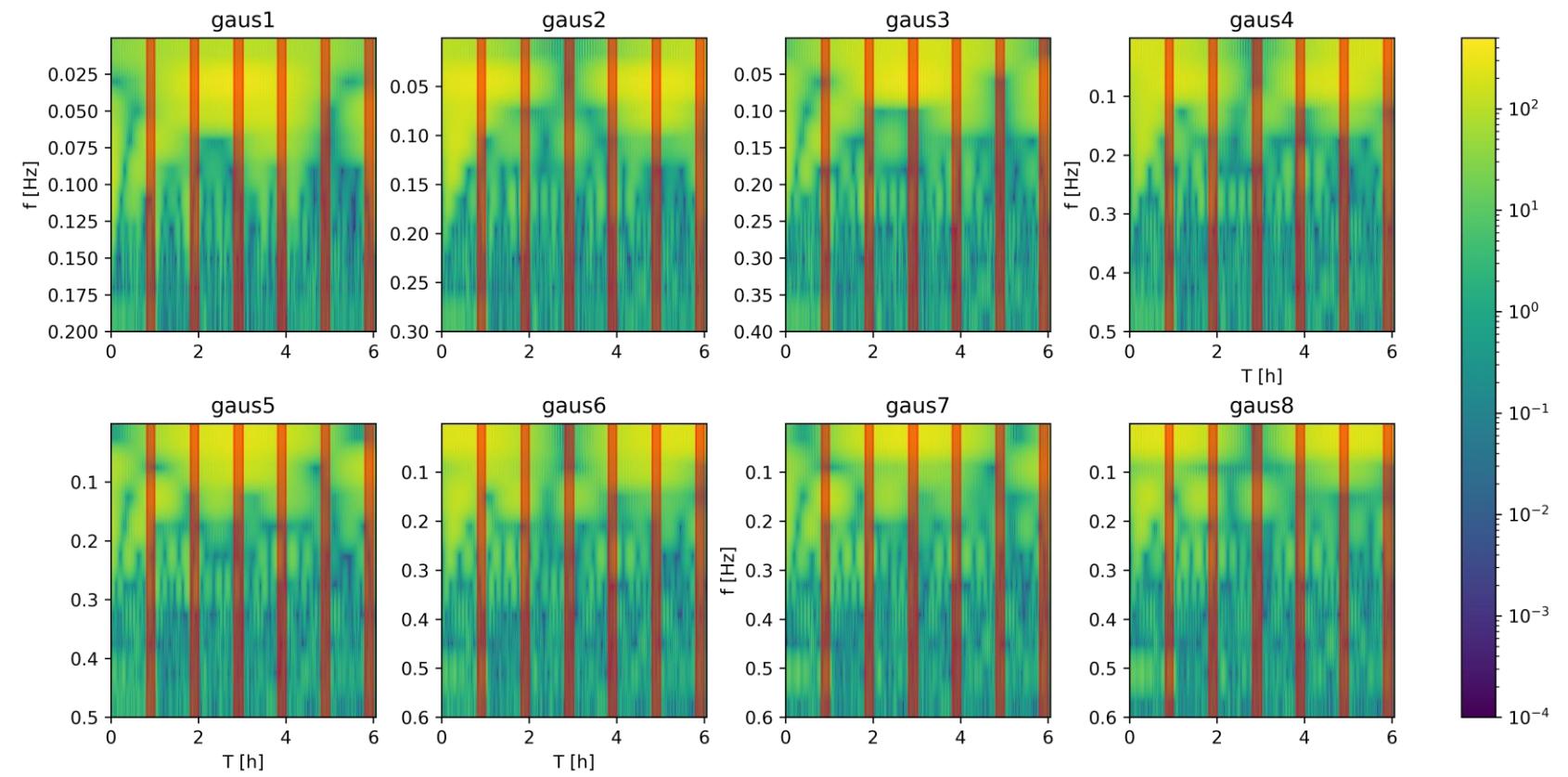
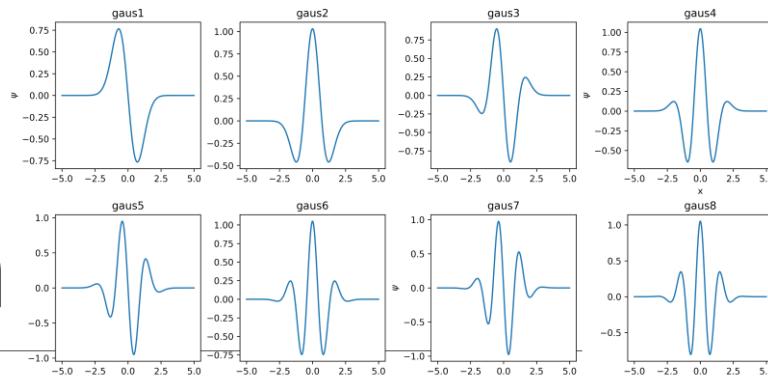
Time Series Data



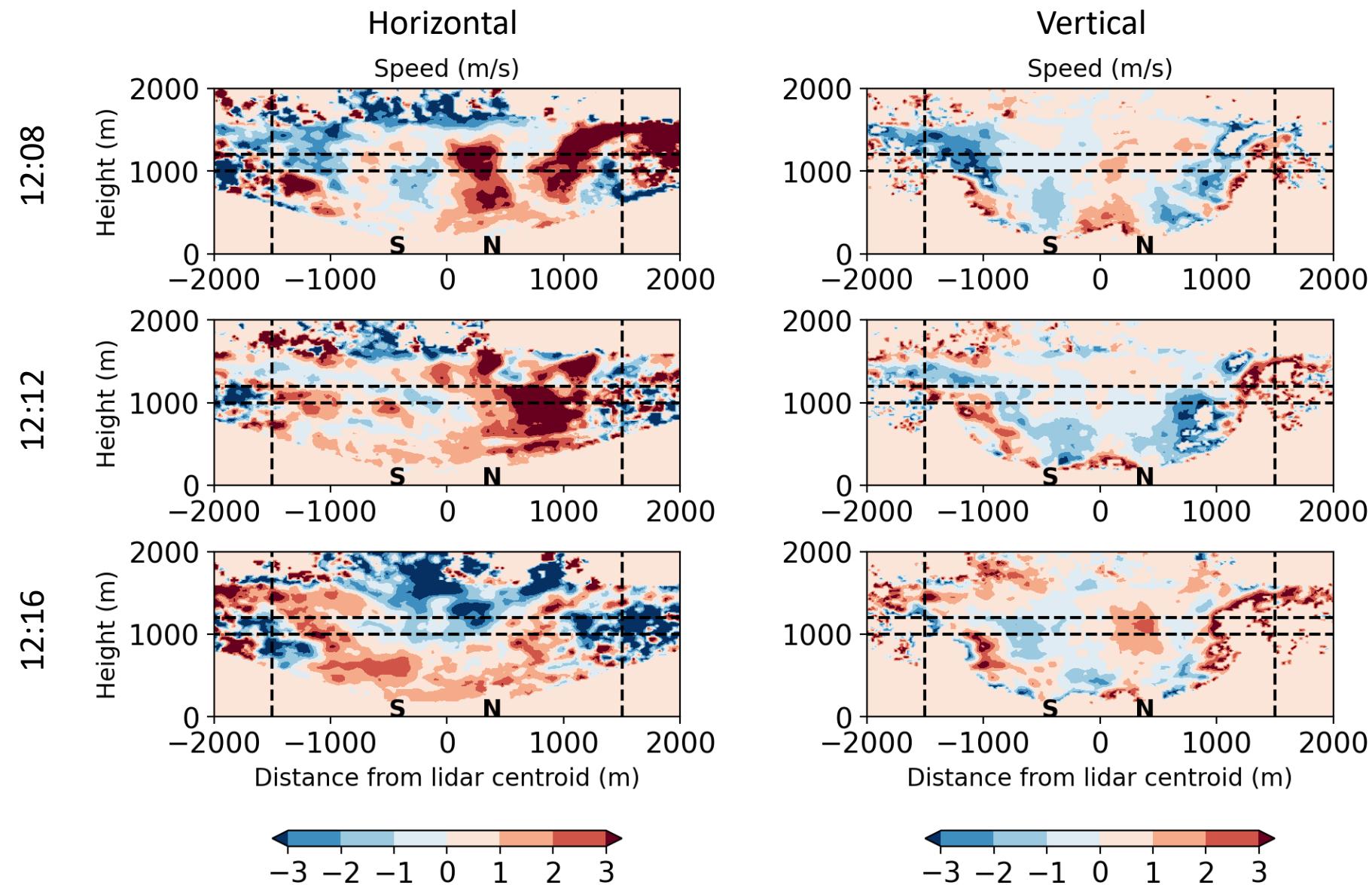
Gaus1 Wavelet



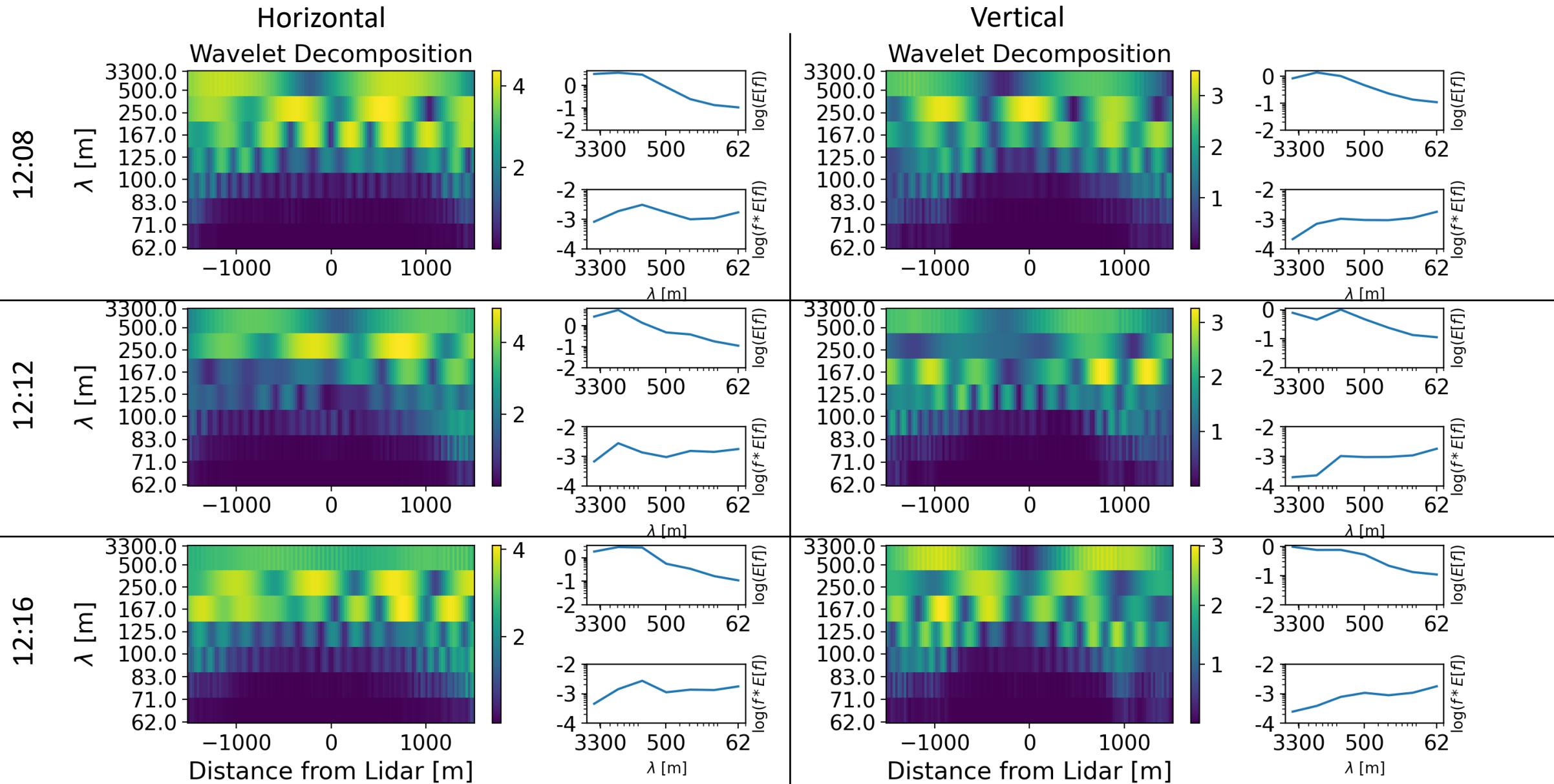
Gaussian Wavelet Comparison



We analyzed the dual lidar retrievals of horizontal and vertical velocity on July 23, 2022 between 1208 UTC and 1216 UTC

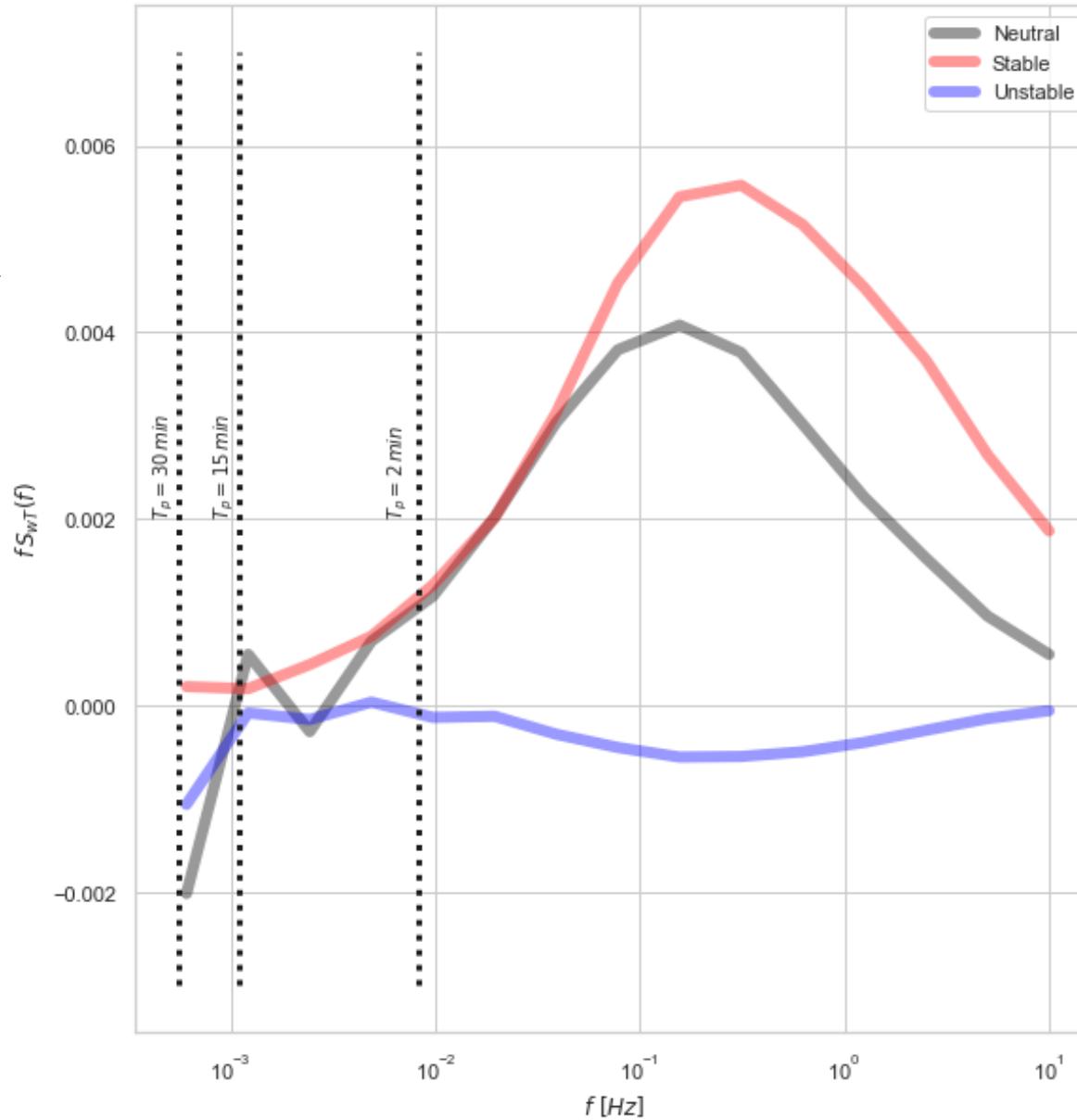


Scale decomposition using Morlet wavelet shows collocated features at wavelengths longer than 250 m



Multiresuloution Decompsiston

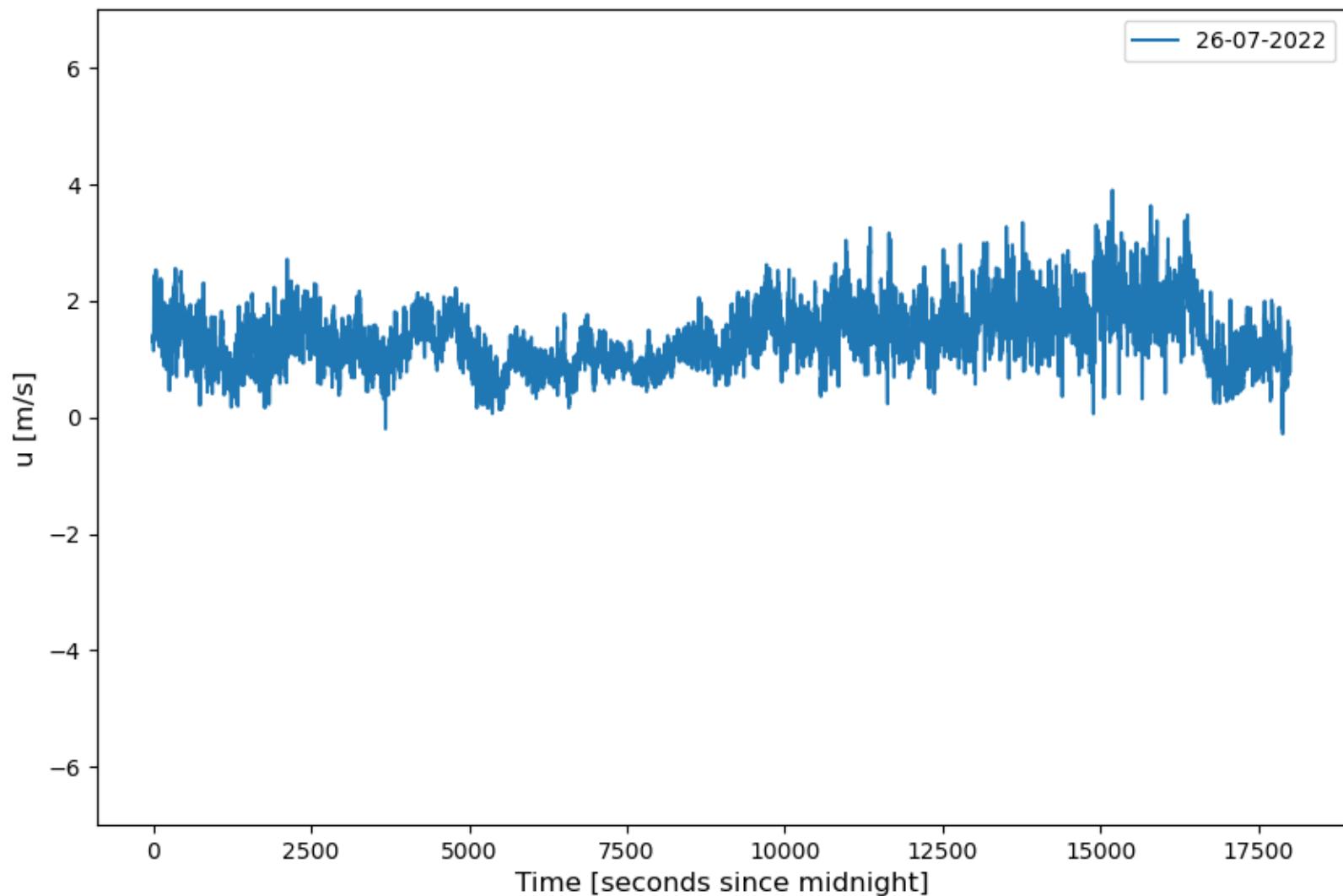
$\overline{w'T'}$ Cospectra

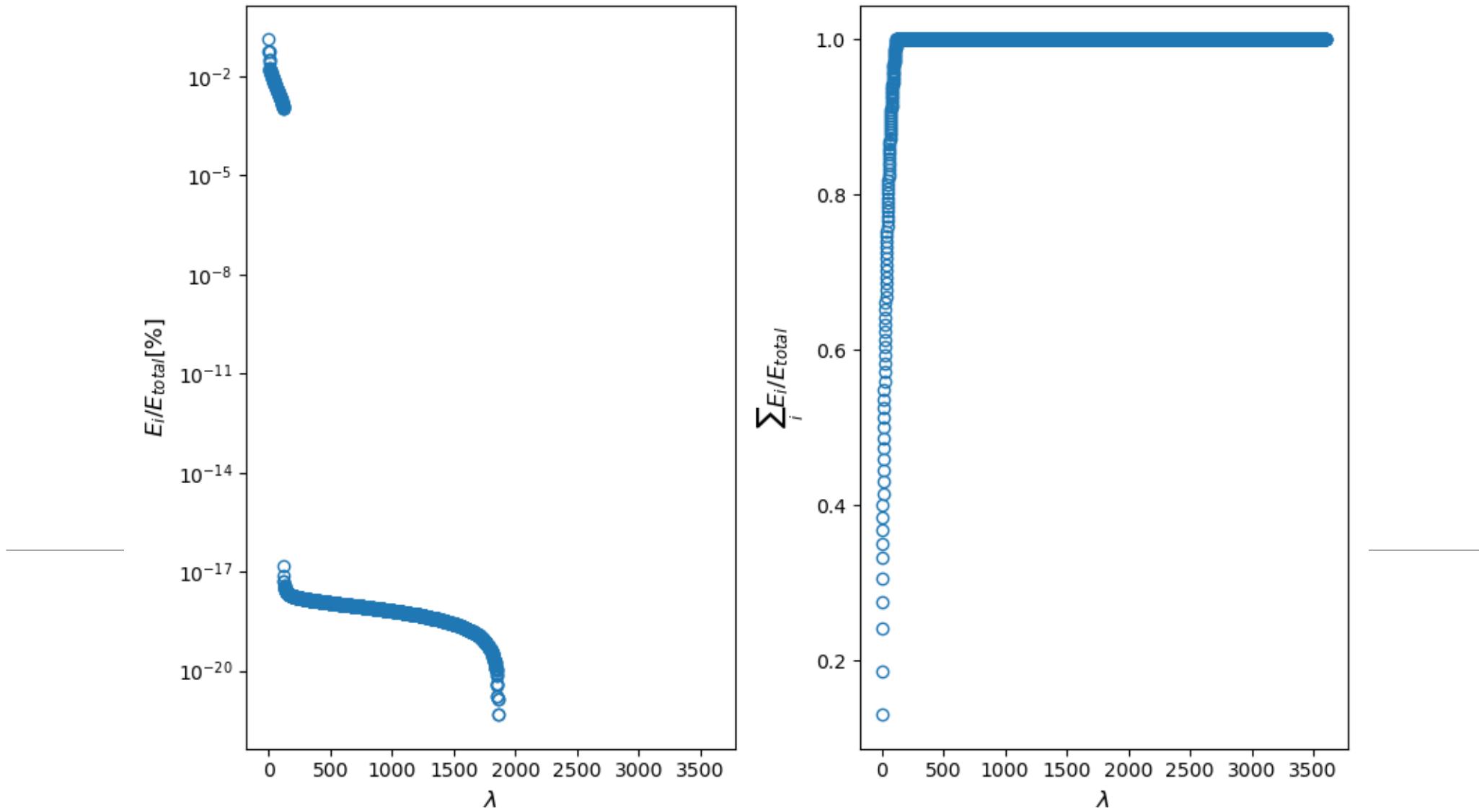


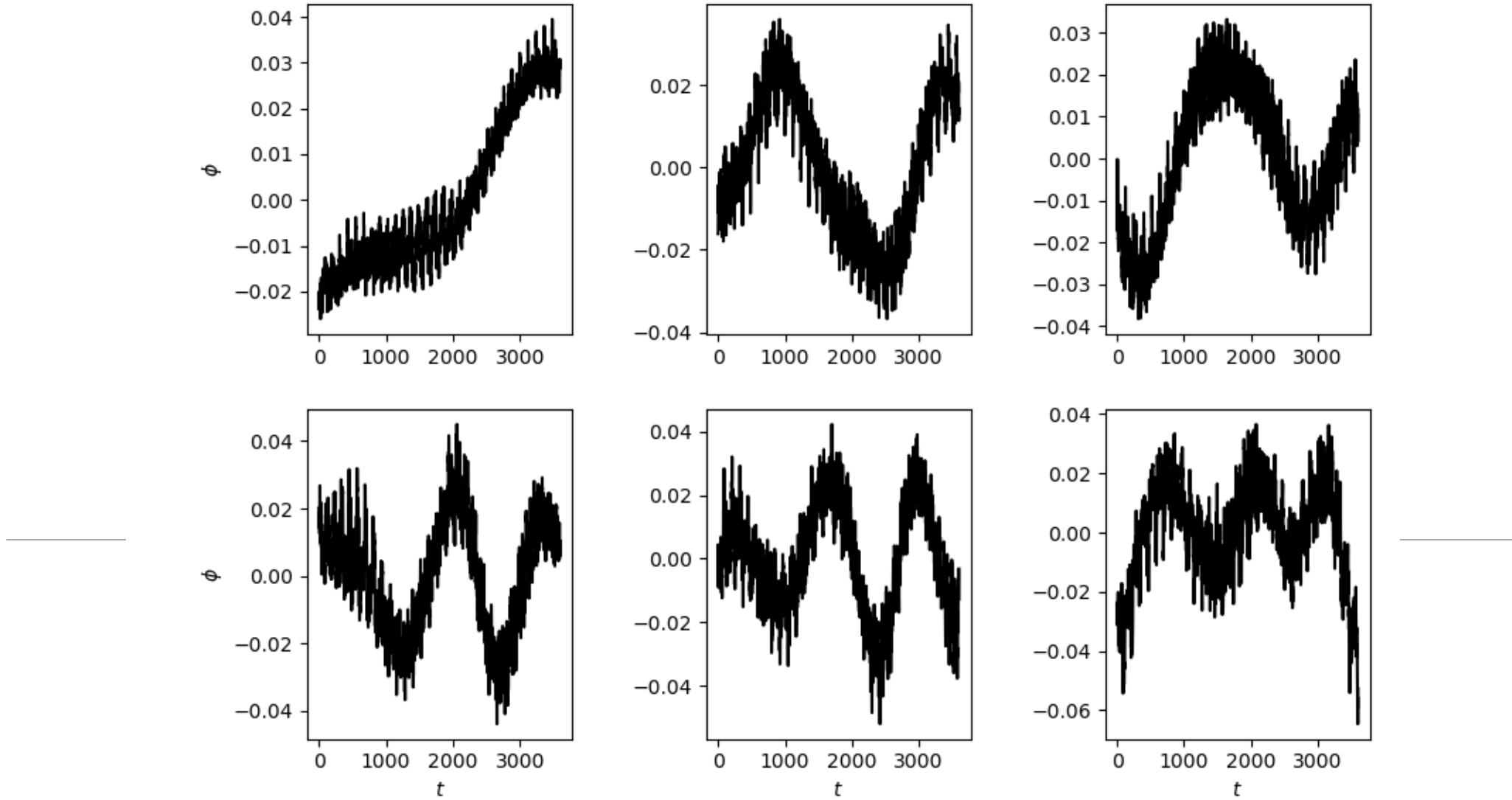
Proper Orthogonal Decomposition

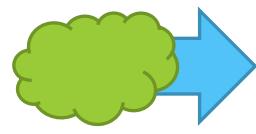
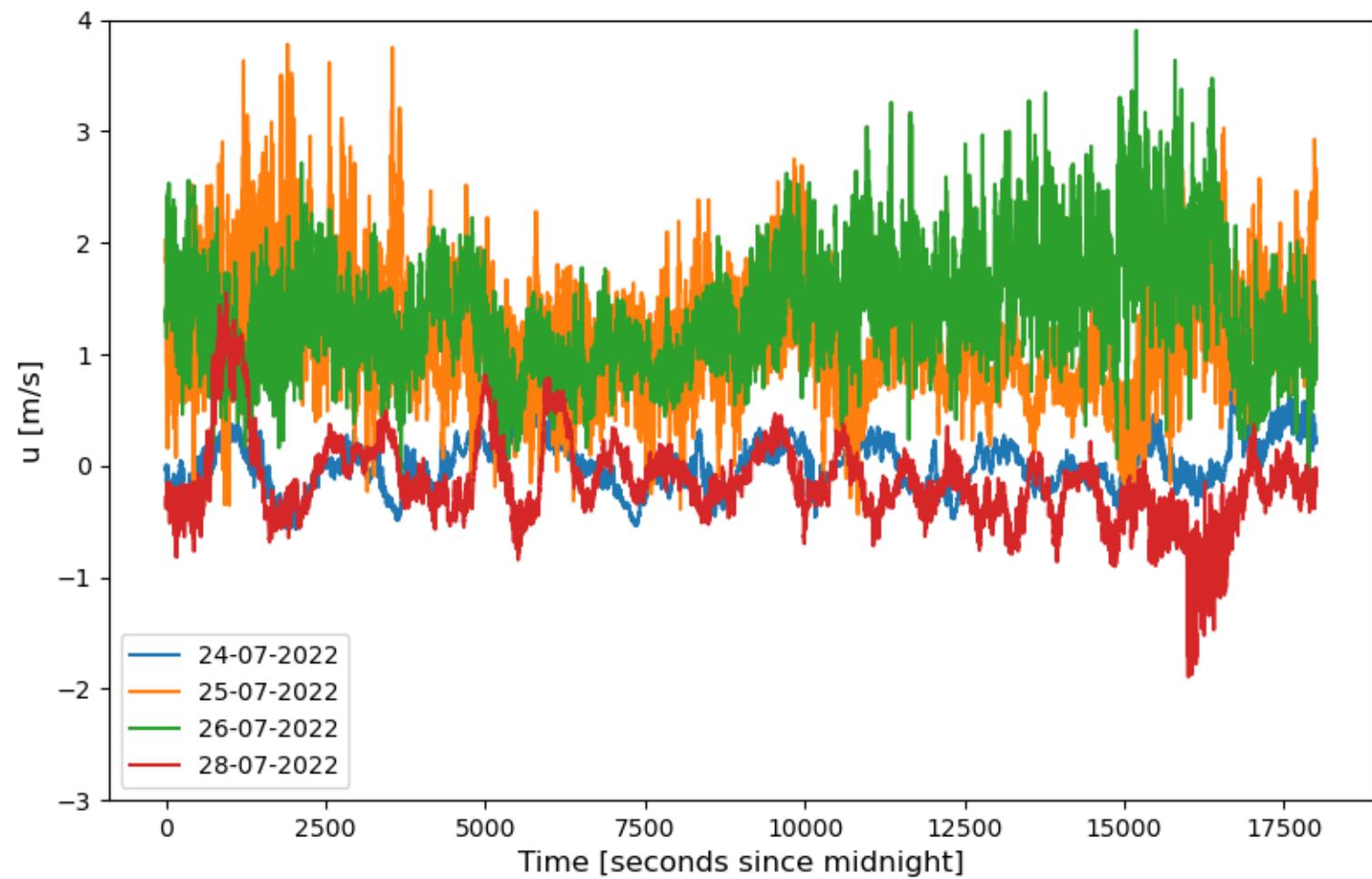
To POD or not to POD?

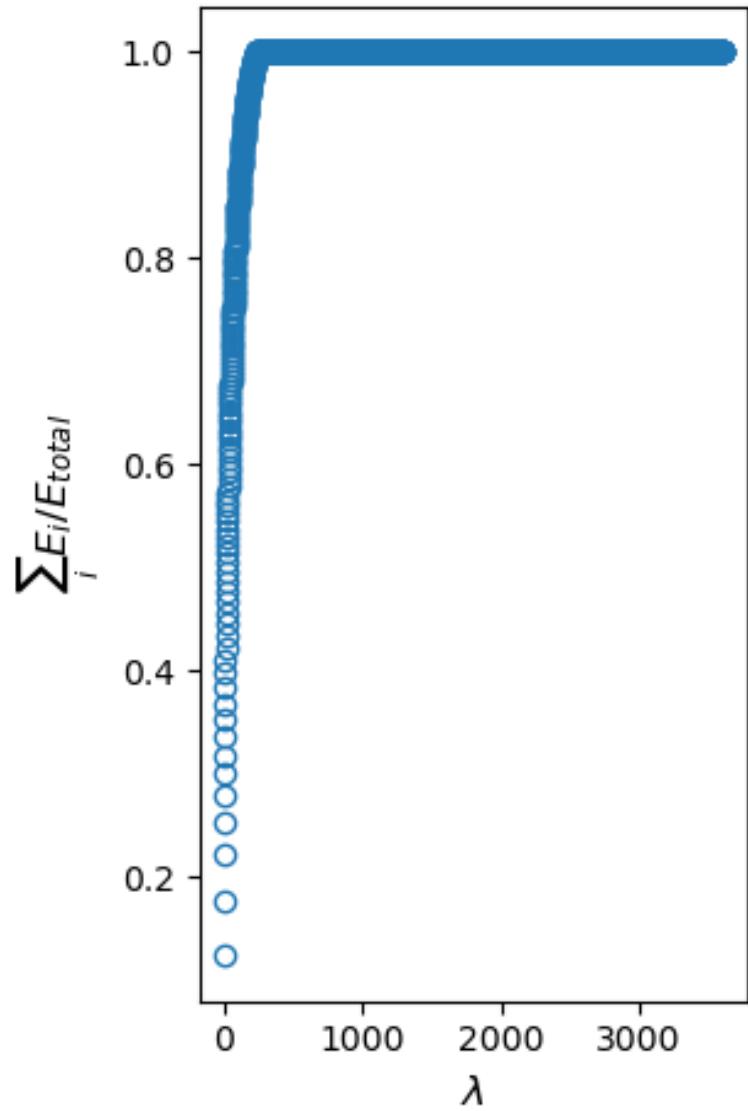
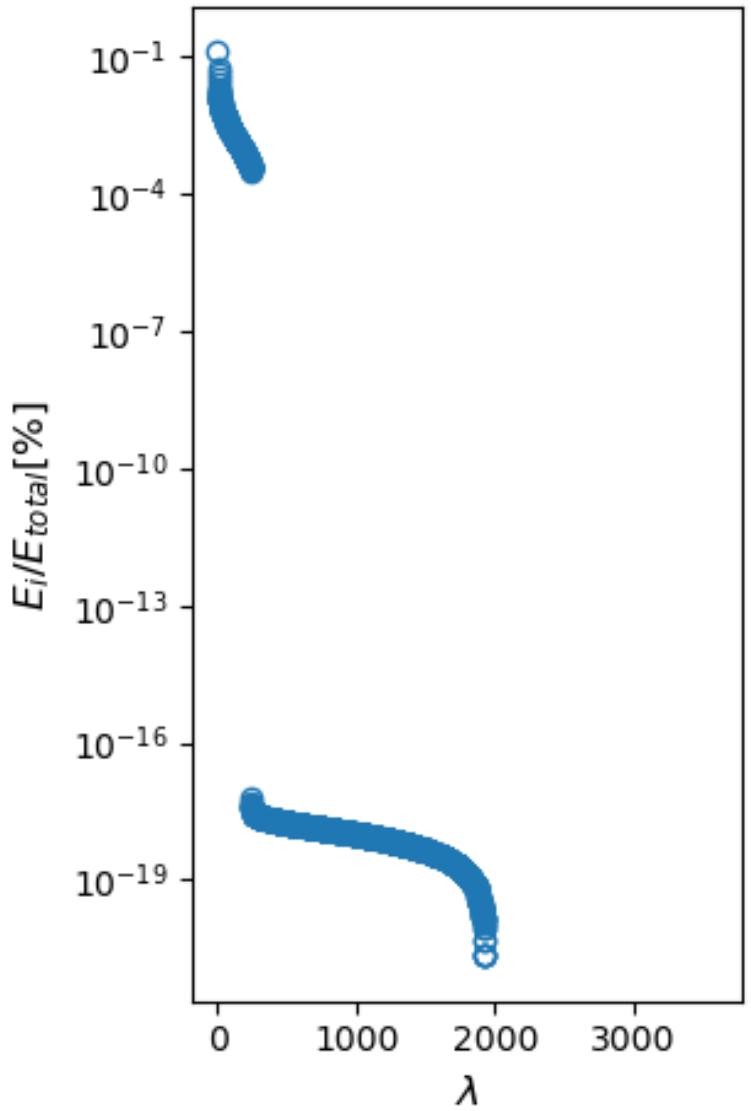
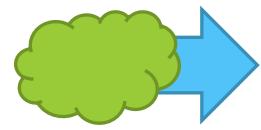
PROPER ORTHOGONAL DECOMPOSITION OF NIGHT TIME WIND

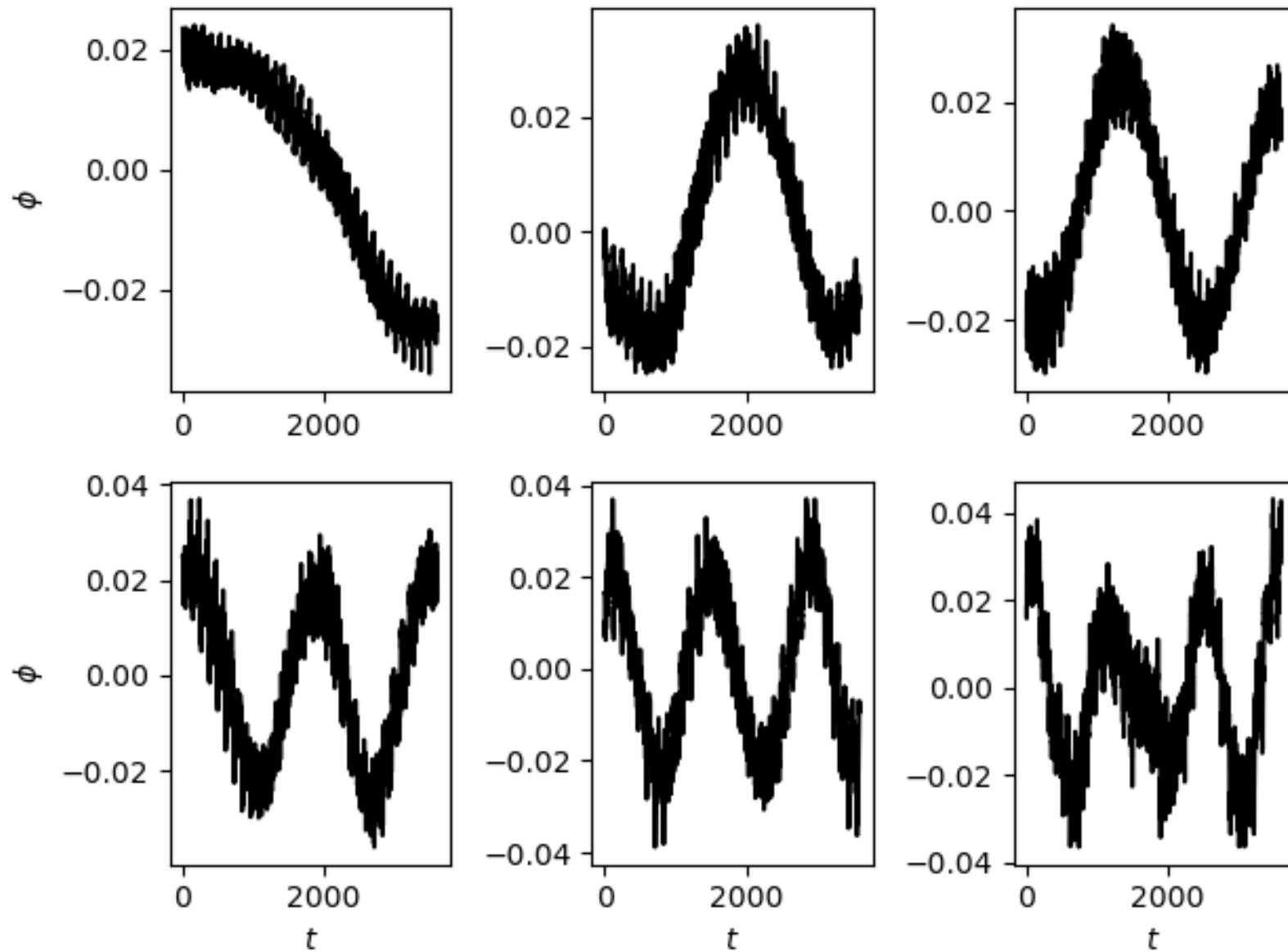
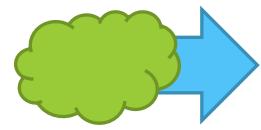


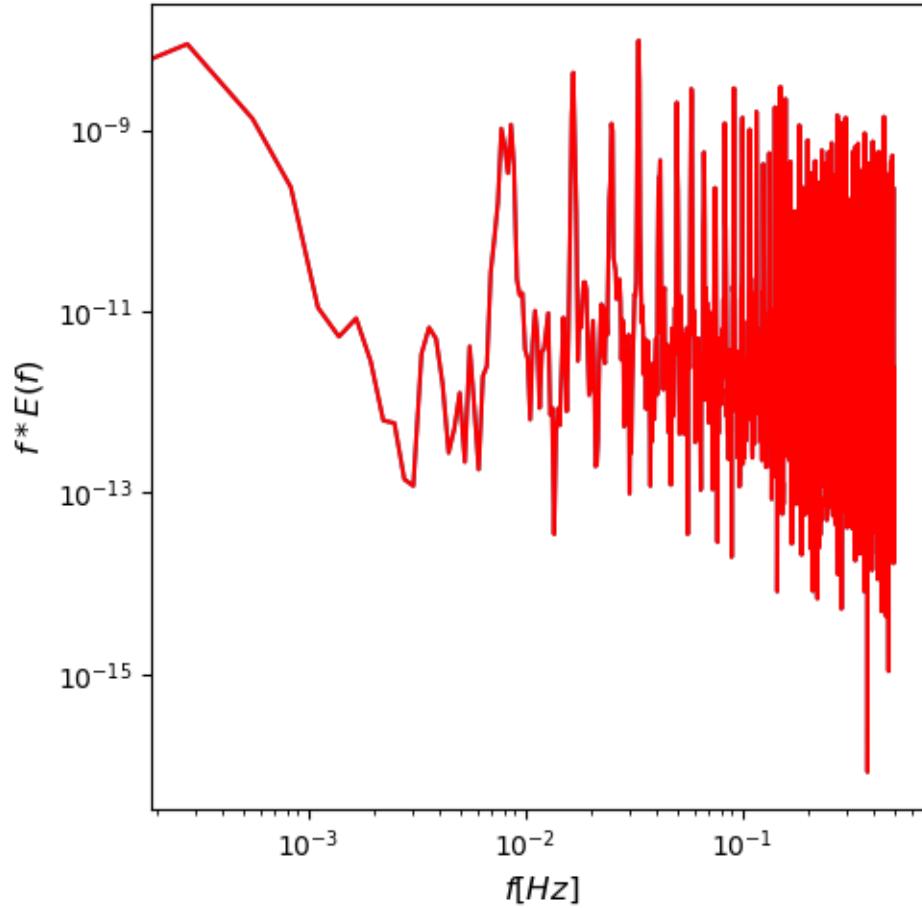
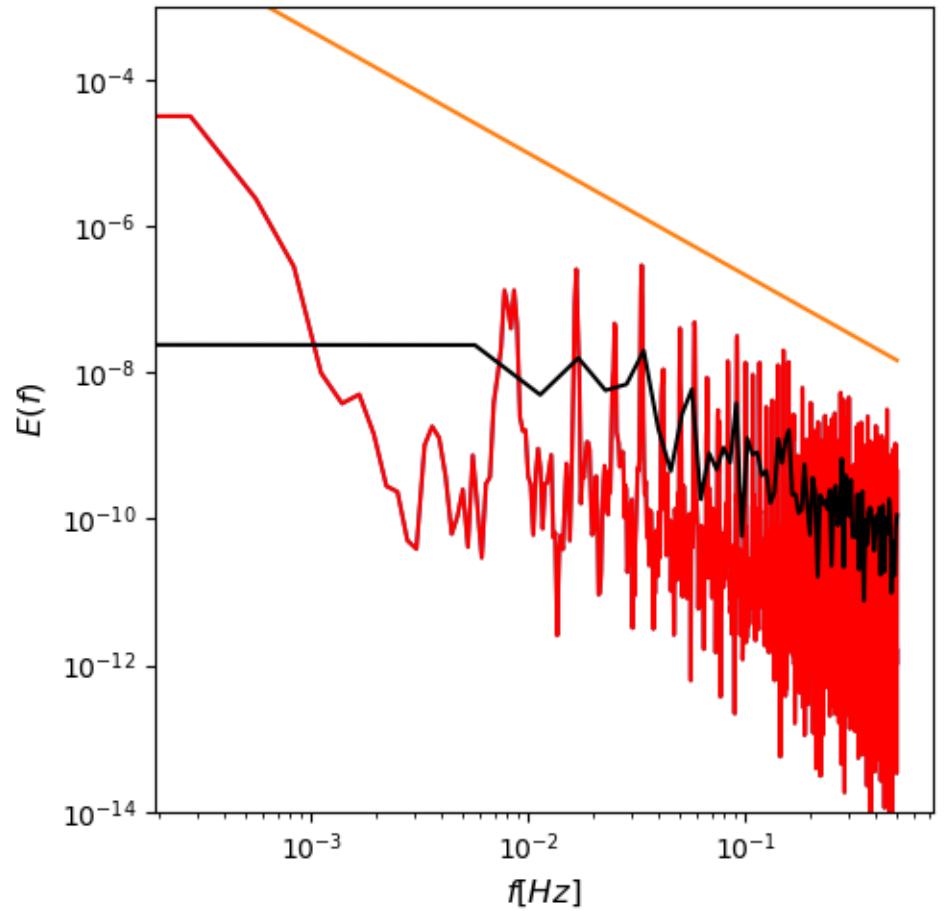
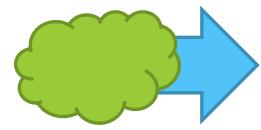


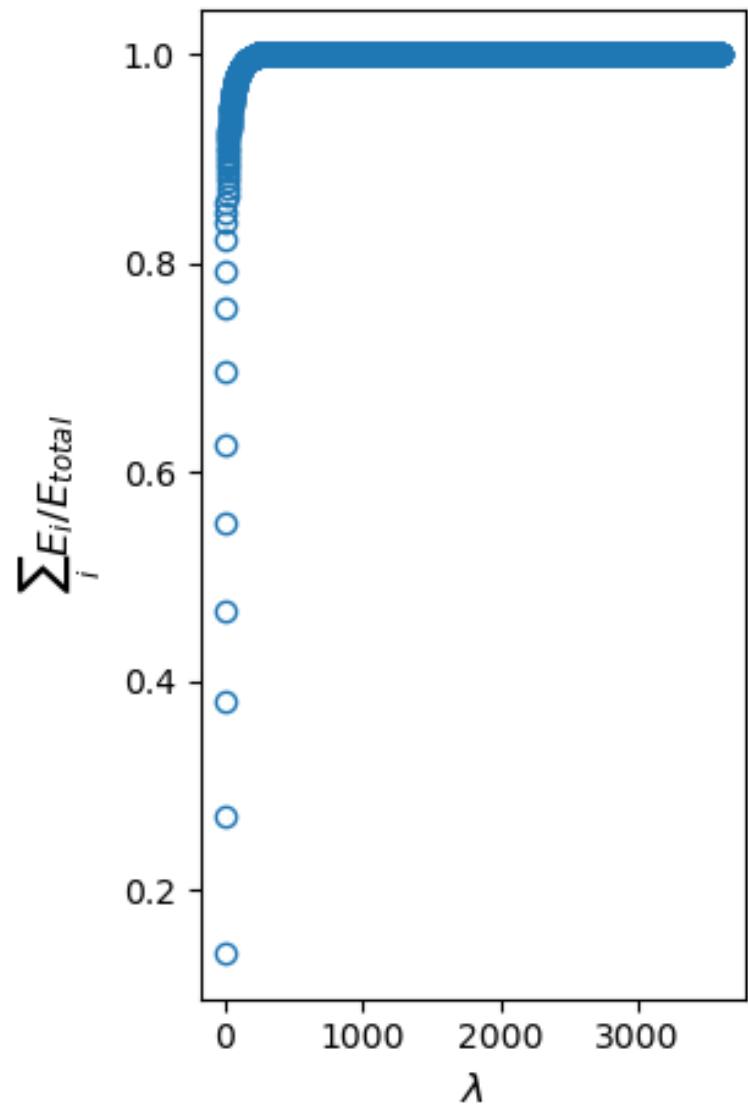
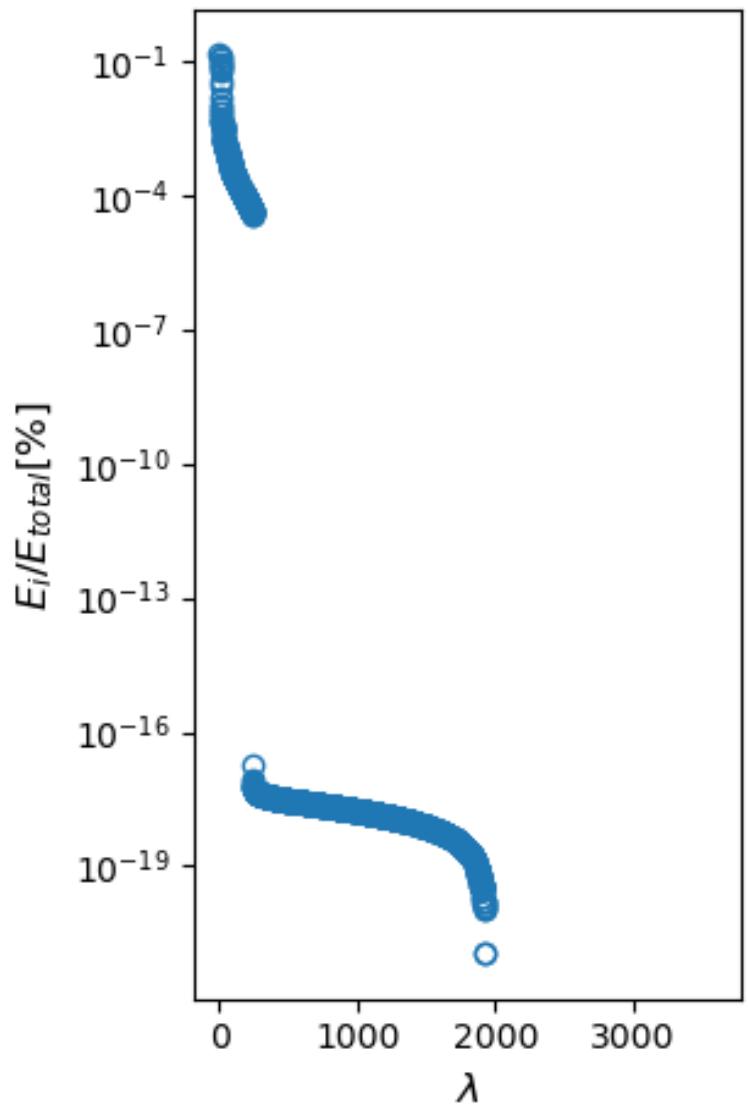


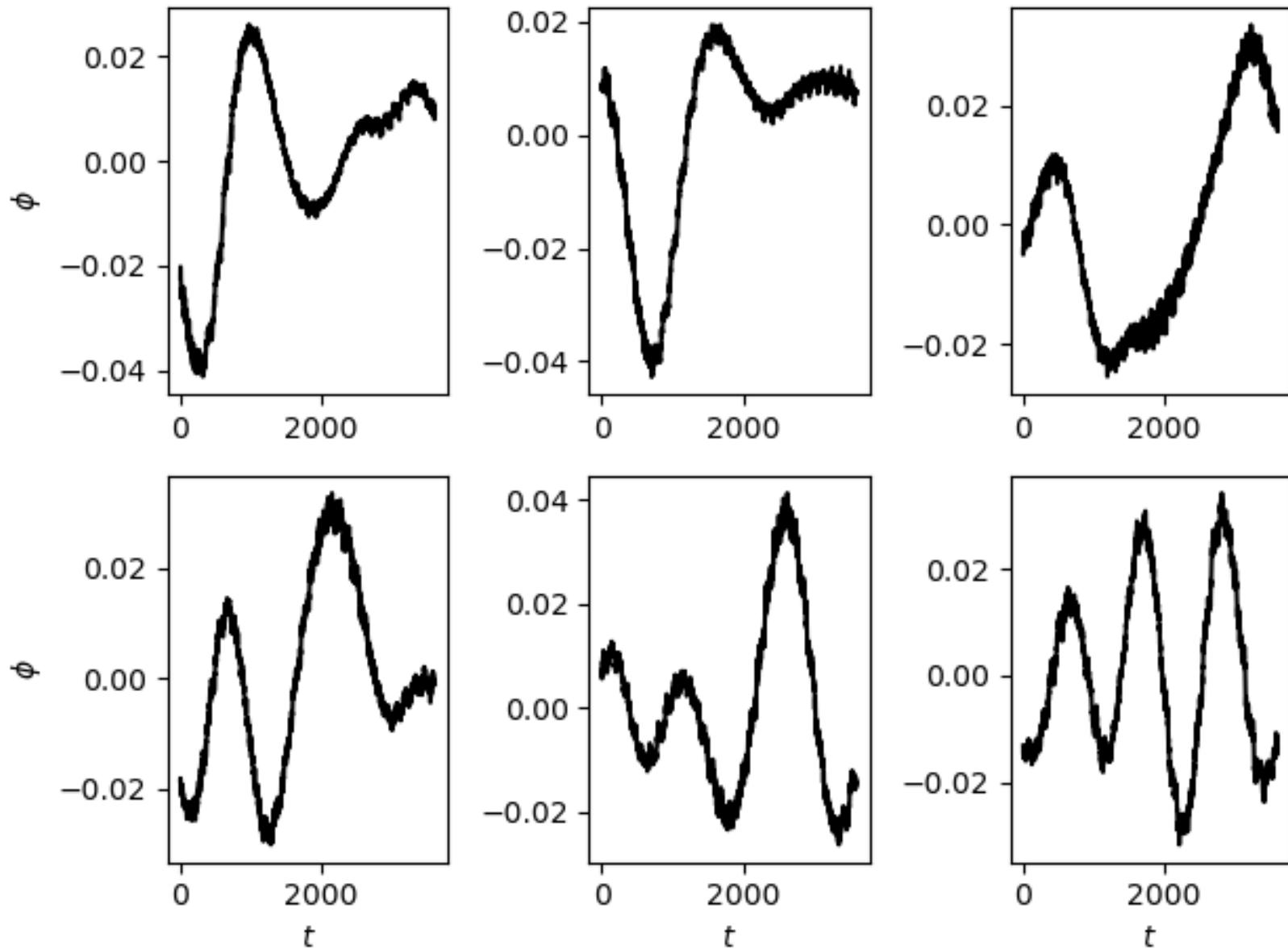


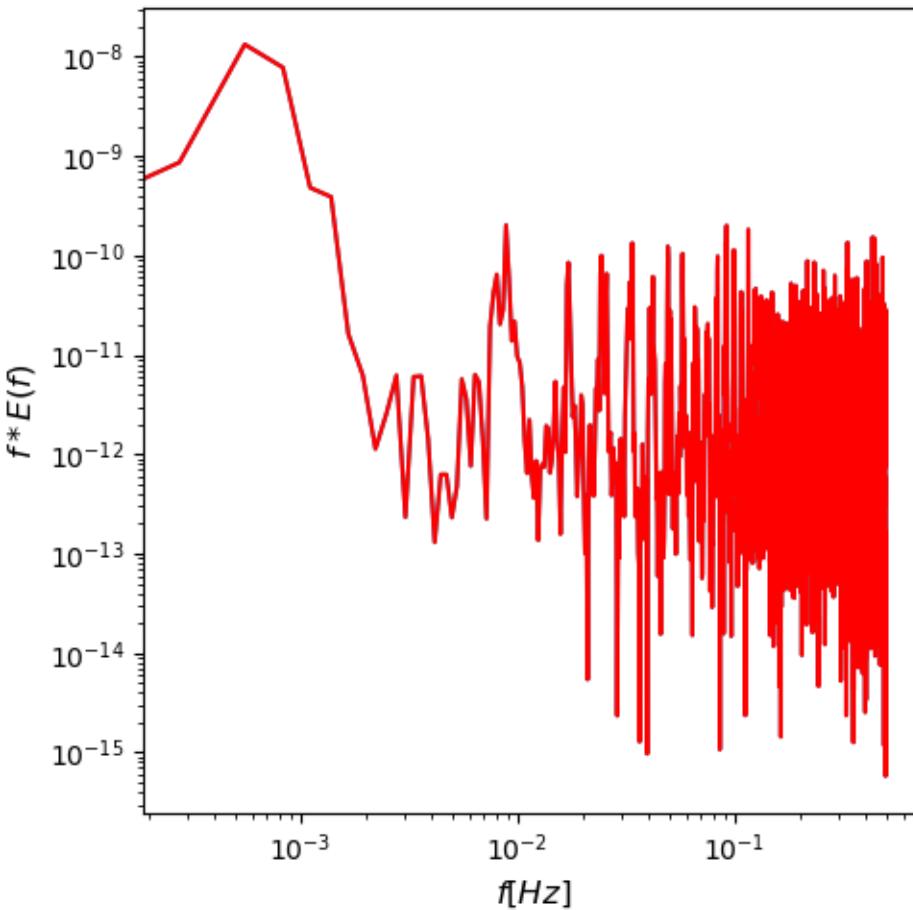
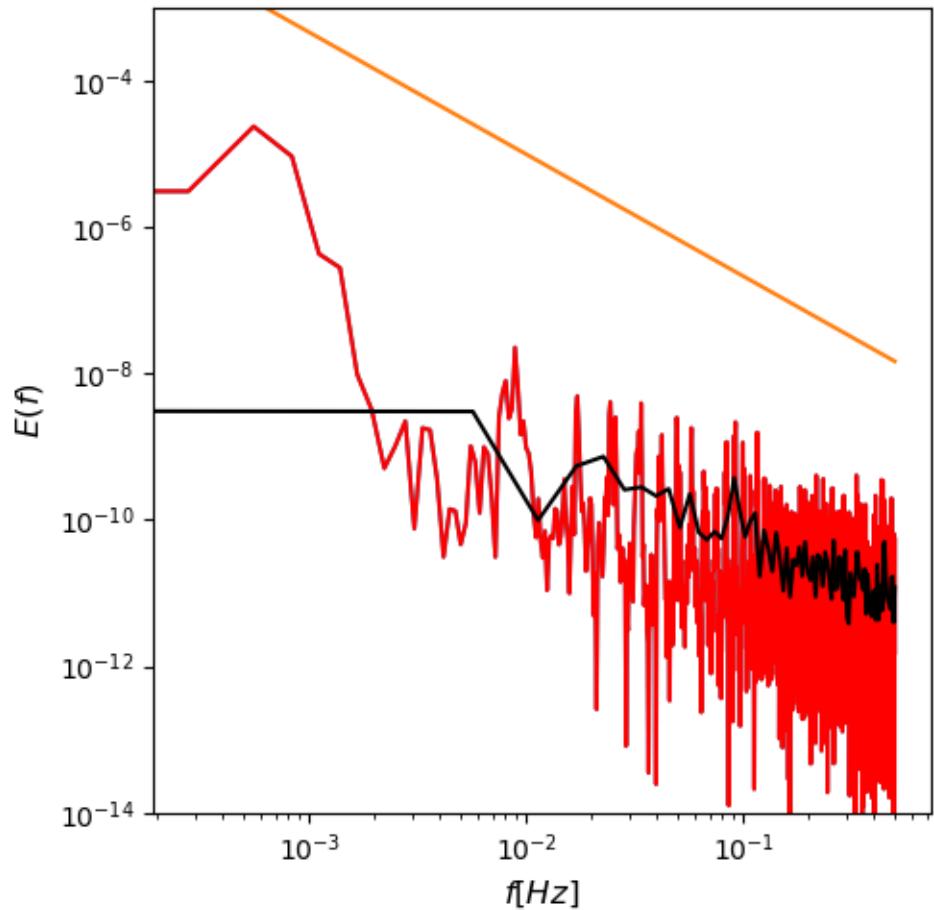












To POD or not to POD?

POD is very data hungry

Data needs to be comparable to improve results

POD needs many tries

Takk for oss!

