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University of South Florida
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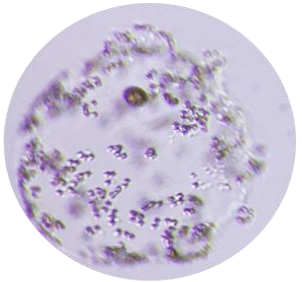
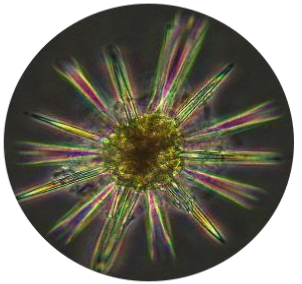
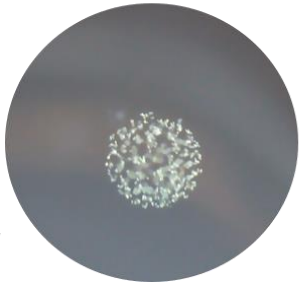
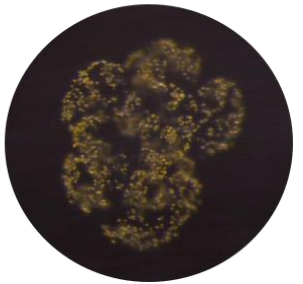
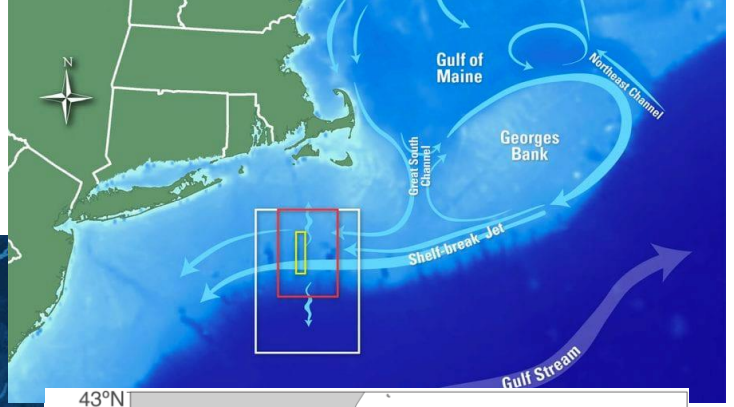
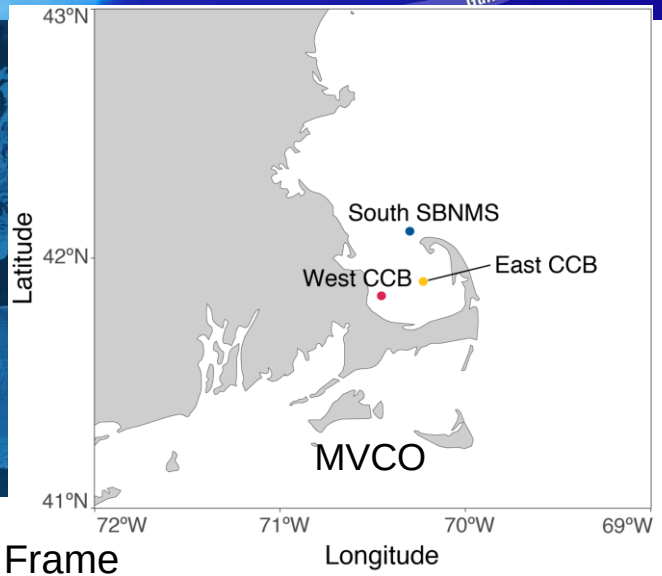
https://micolab-usf.github.io/home/



OOI Workshop Data Exploration





Pioneer Array, Inshore Surface Mooring, Near Surface Instrument Frame
CTD, Flort, OPTAA
Time-series

Largely an exercise in data wrangling

- Grouped by hour and took median in order to match up with optaa data
- Nitrate: converted values less than -2 (?) to 0

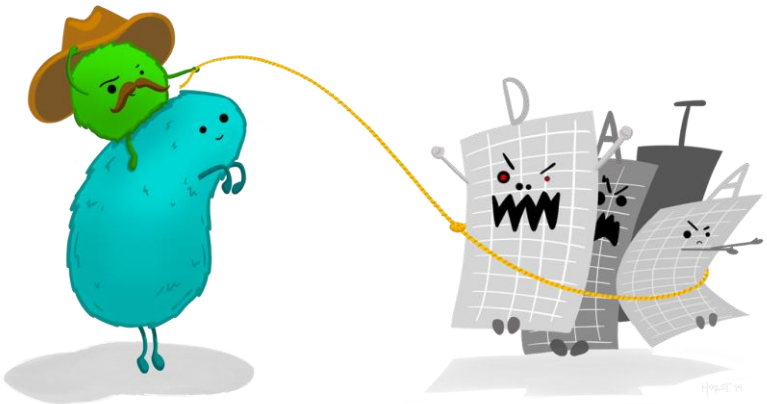
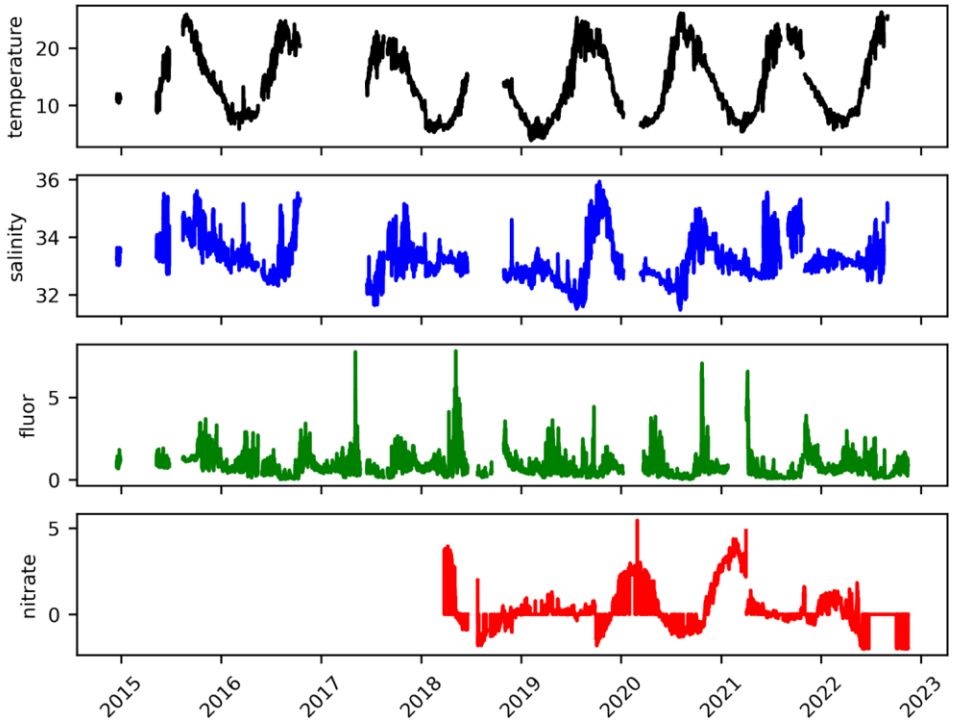
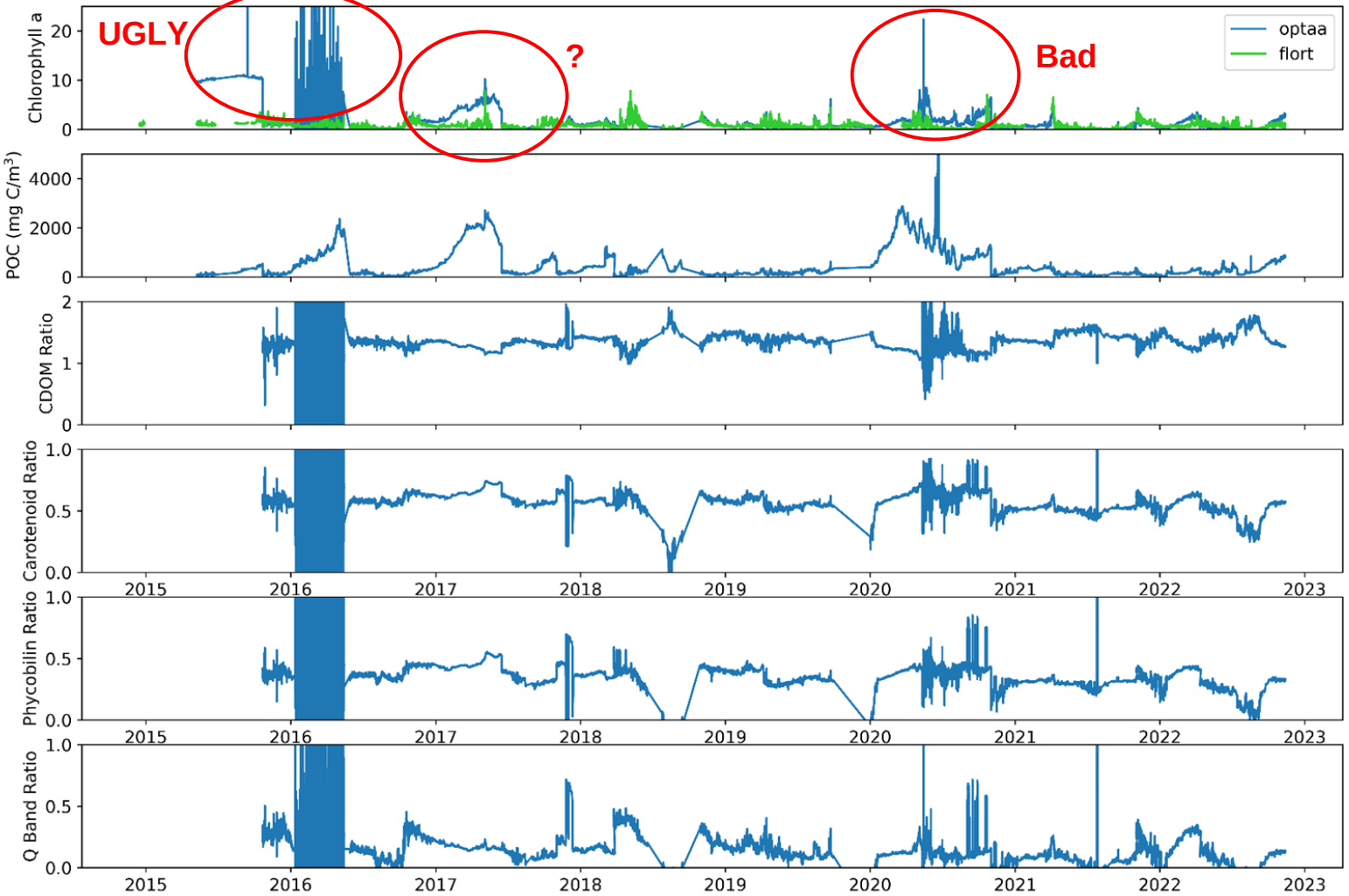


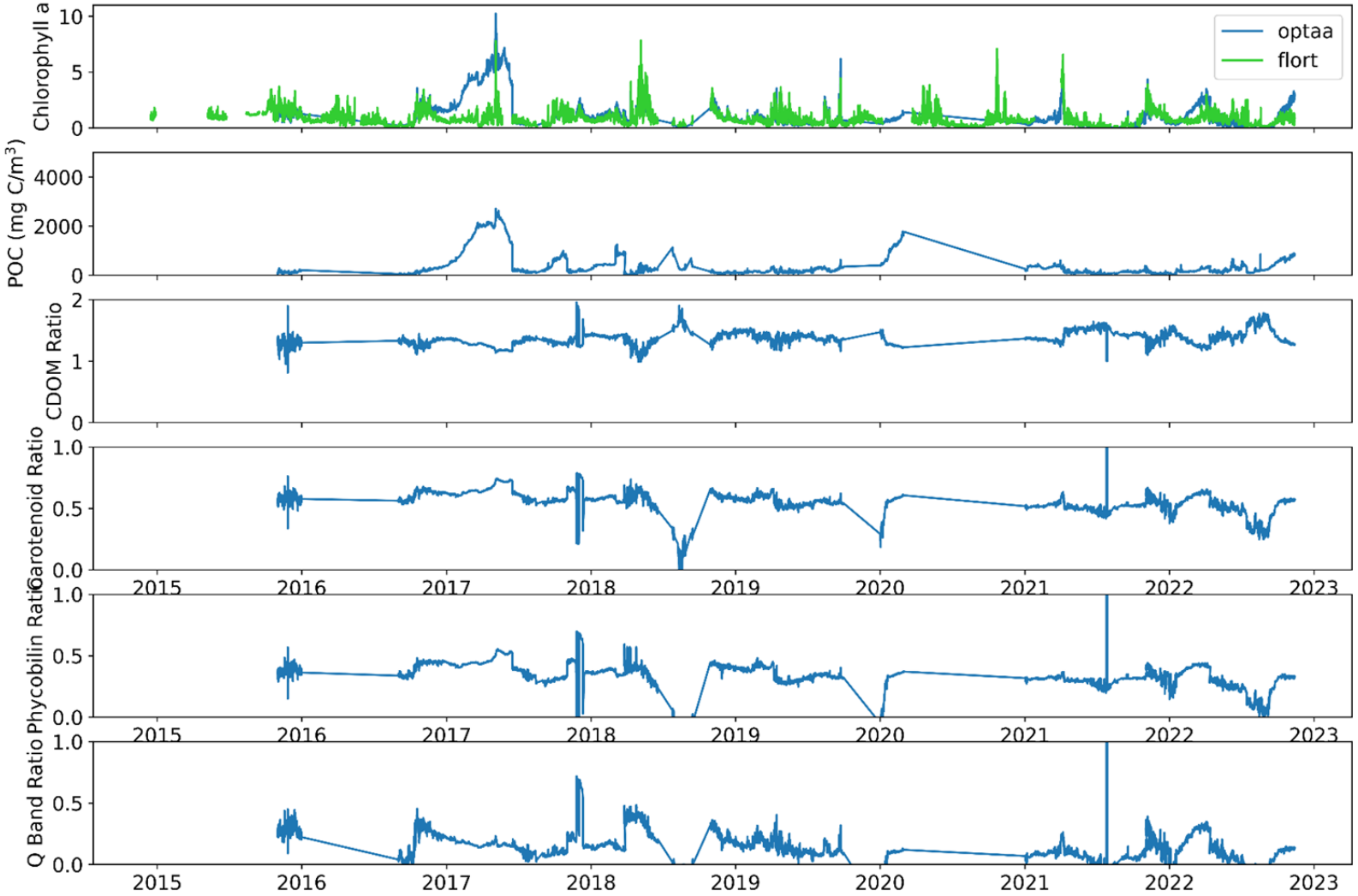
Illustration by Allison Horst



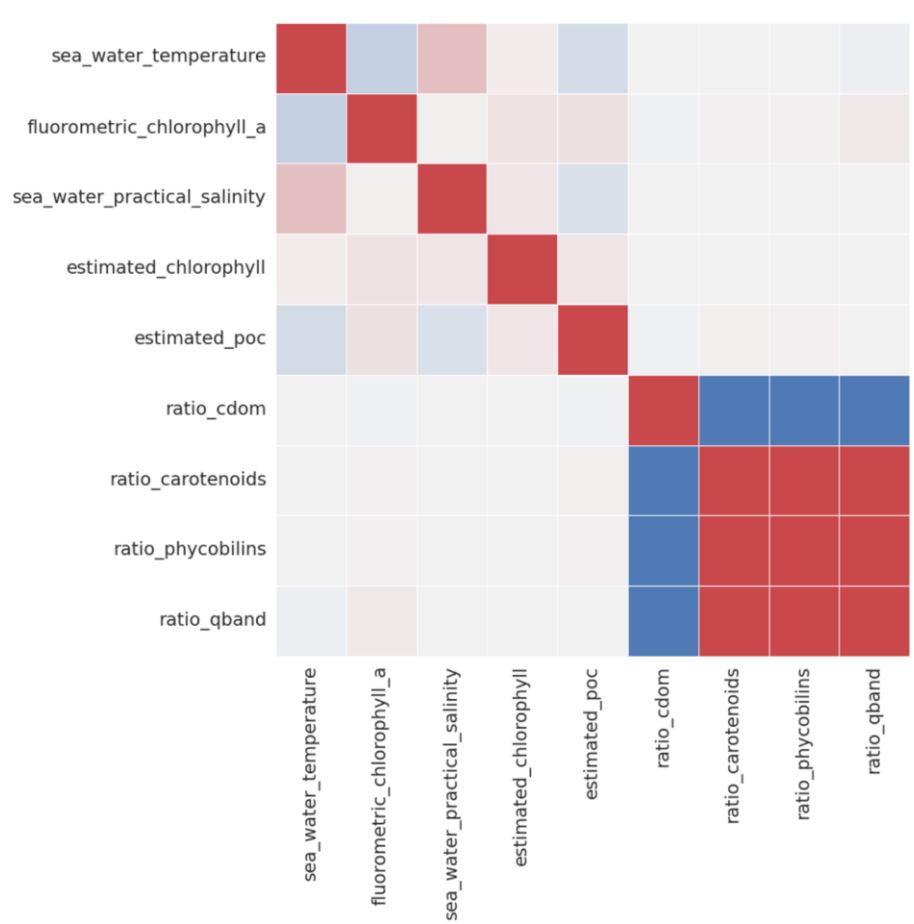
BAD
GOOD
UGLY

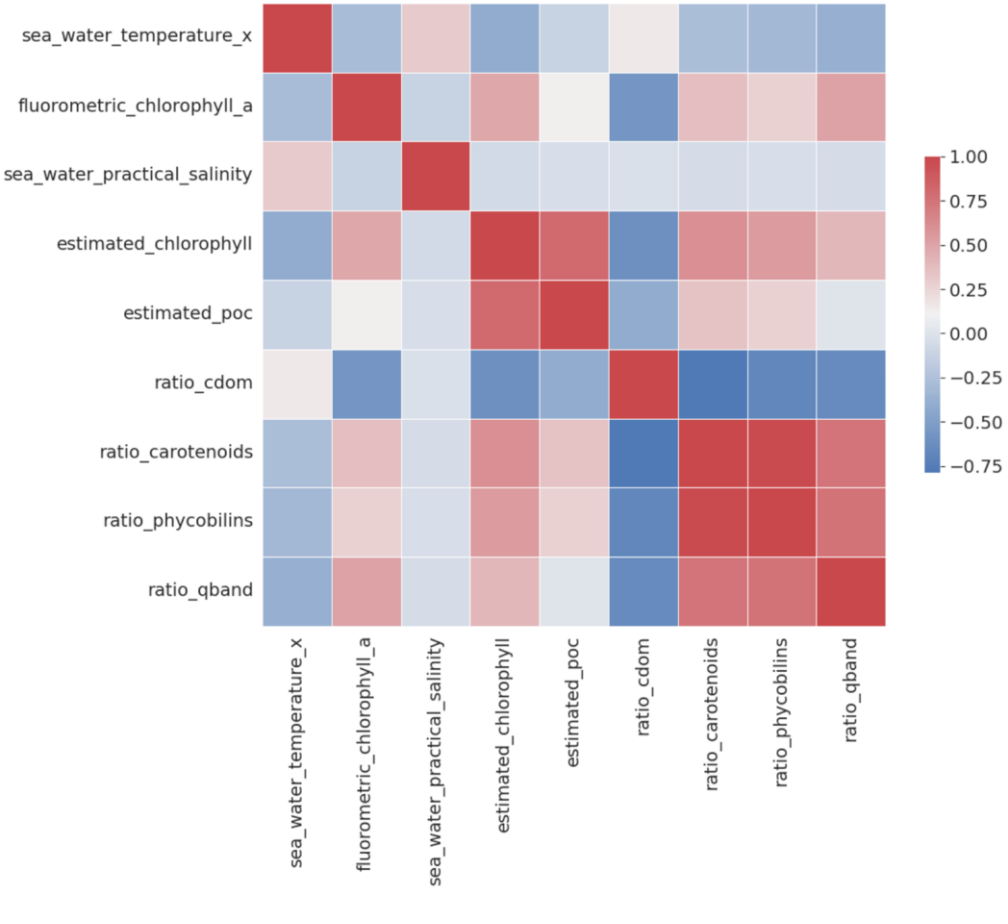

UGLY
?
Bad
optaa
flort
Chlorophyll a
POC (mg C/m³)
CDOM Ratio
Carotenoid Ratio
Phycobilin Ratio
Q Band Ratio
2015
2016
2017
2018
2019
2020
2021
2022
2023

Cleaned
better?



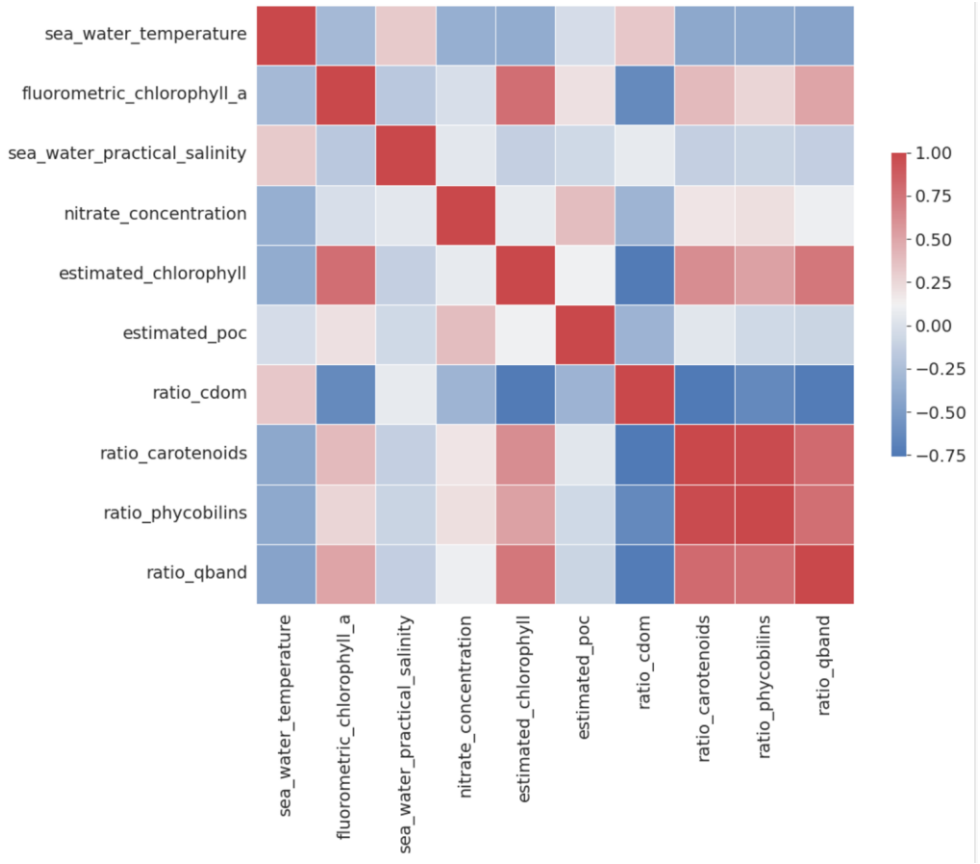
Improved relationships between variables:





With nitrate

- Adding nitrate reduces the length of the time series
- Nitrate + corr with POC, carotenoids, phycobilins
- Nitrate - corr with chlorophyll
- Not expected trend? Maybe lagged correlation (looking at nitrate and flort plots)



Other variables of interest:

PAR

Mix layer depth

Future exploration

Bio-optical evidence for increasing *Phaeocystis* dominance in the Barents Sea

A. Orkney[1], T. Platt [2], B. E. Narayanaswamy[3], I. Kostakis[4,5] and H. A. Bouman[1]

Phil. Trans. Royal Society A (2021)

(Used satellite data)

Could inform AC-S data exploration for Phaeo signal @ Irminger and Southern Ocean