



Find a title.

Abstract: *TODO*

Keywords: *CTD, Field work, TODO*

Contents

1	Introduction	2
2	Materials and methods	2
2.1	Presentation of the field work and data acquisition	2
2.2	Data processing	2
2.2.1	Cleaning and calibration	2
2.2.2	Data assimilation / creating new metrics	2
3	Results	2
4	Discussion	3
5	Conclusion	3

1 Introduction

TODO find references about fjords, skagerrak

2 Materials and methods

2.1 Presentation of the field work and data acquisition

field work 10-11 of December 2018

on board of 2 ships: Skagerrak and Trygve

2.2 Data processing

2.2.1 Cleaning and calibration

Reprocessing data, potential temp, absolute sal

Gridding every meter 1-120 m depth

2.2.2 Data assimilation / creating new metrics

Find some

Turner angle TODO compute

Geostrophy TODO compute

Profil fitting and layers Add a plot with the fit on a profile

No sub-mesoscale heat fluxes because no mixed layer

3 Results

T-S diagram see figure 1

we recognize Skagerrak and Kattegat water (*Björk and Nordberg, 2003; Gustafsson and Stigebrandt, 1996*)

Kattegat salinity 15/20(depending on the source)-25

Skagerrak salinity between 33 (surface) to 35 (100m depth)

warm water layer warm water in the fjord, see mean depth, std depth, mean T and S, see spatial distribution

strong halocline

Turner angle What is happening here?

Geostrophy What is happening here?

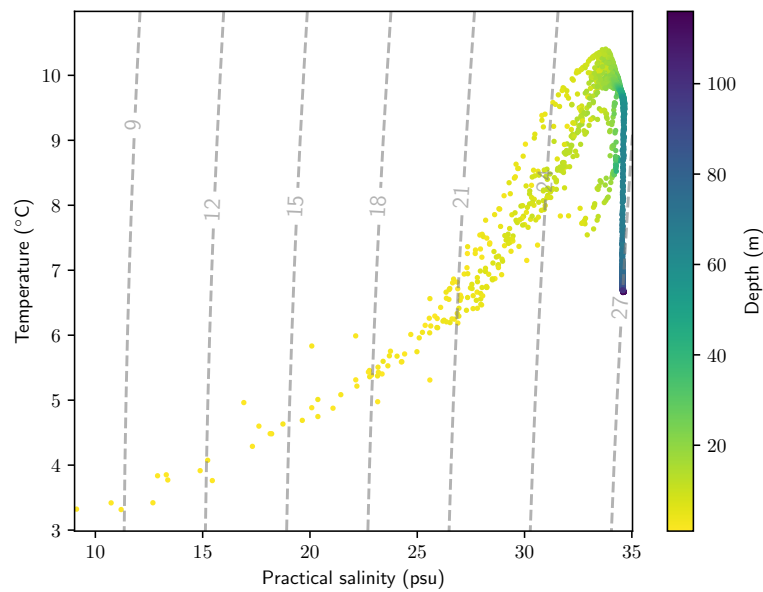


Figure 1: T-S diagram

Upwelling event? Mixing? (*Arneborg*, 2004)

4 Discussion

TODO

5 Conclusion

See what is the context

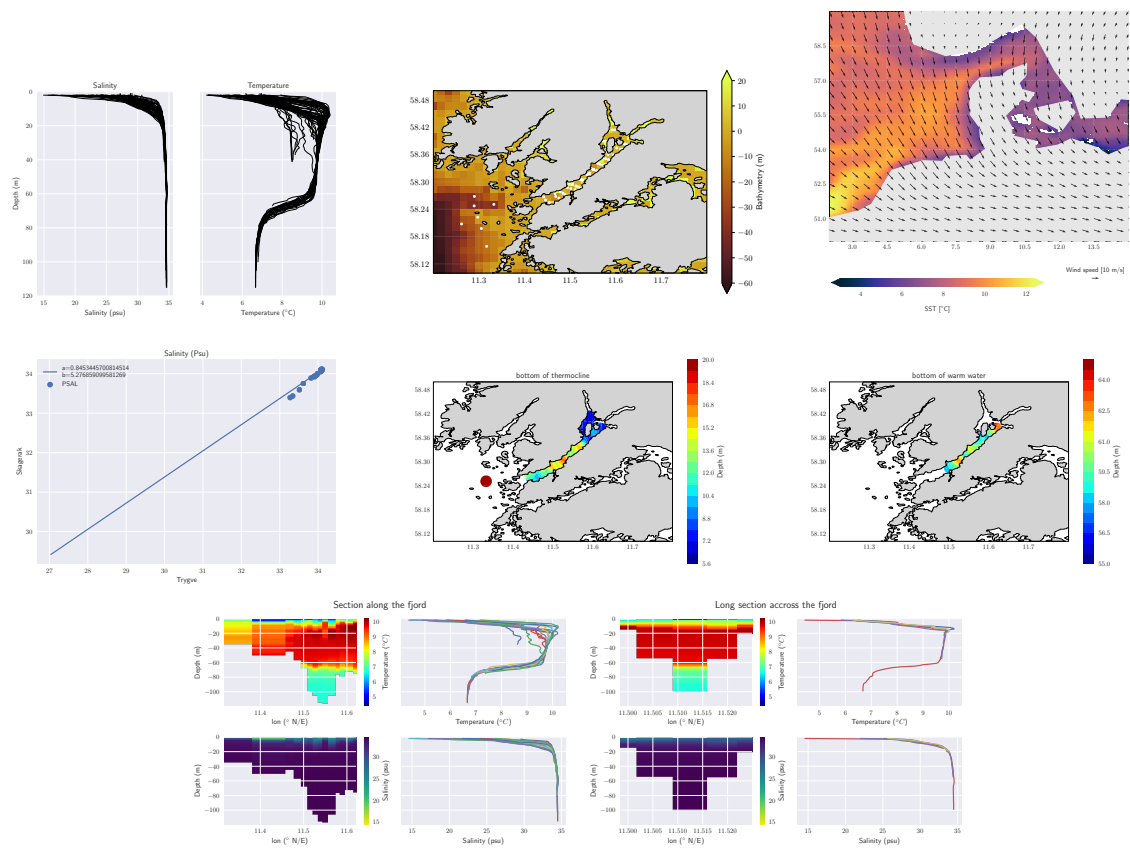
What we did

What we showed/saw

What is the conclusion

References

- Arneborg, L. (2004), Turnover times for the water above sill level in gullmar fjord, *Continental Shelf Research*, *24*(4), 443 – 460, doi:<https://doi.org/10.1016/j.csr.2003.12.005>.
- Björk, G., and K. Nordberg (2003), Upwelling along the swedish west coast during the 20th century, *Continental Shelf Research*, *23*(11), 1143 – 1159, doi:[https://doi.org/10.1016/S0278-4343\(03\)00081-5](https://doi.org/10.1016/S0278-4343(03)00081-5).
- Gustafsson, B., and A. Stigebrandt (1996), Dynamics of the freshwater-influenced surface layers in the skagerrak, *Journal of Sea Research*, *35*(1), 39 – 53, doi:[https://doi.org/10.1016/S1385-1101\(96\)90733-9](https://doi.org/10.1016/S1385-1101(96)90733-9).



TODO
 ALL THE FIGURES I WANT TO PUT ON THE REPORT
 For all profiles, put 2 different color for offshore and fjord