

# Mesures de méthane par ATR42 - 17/08/2021

Félix Langot

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Supervisé par C. Crevoisier, T. Lauvaux

*LMD - Palaiseau*

21 avril 2022



2021 08 17

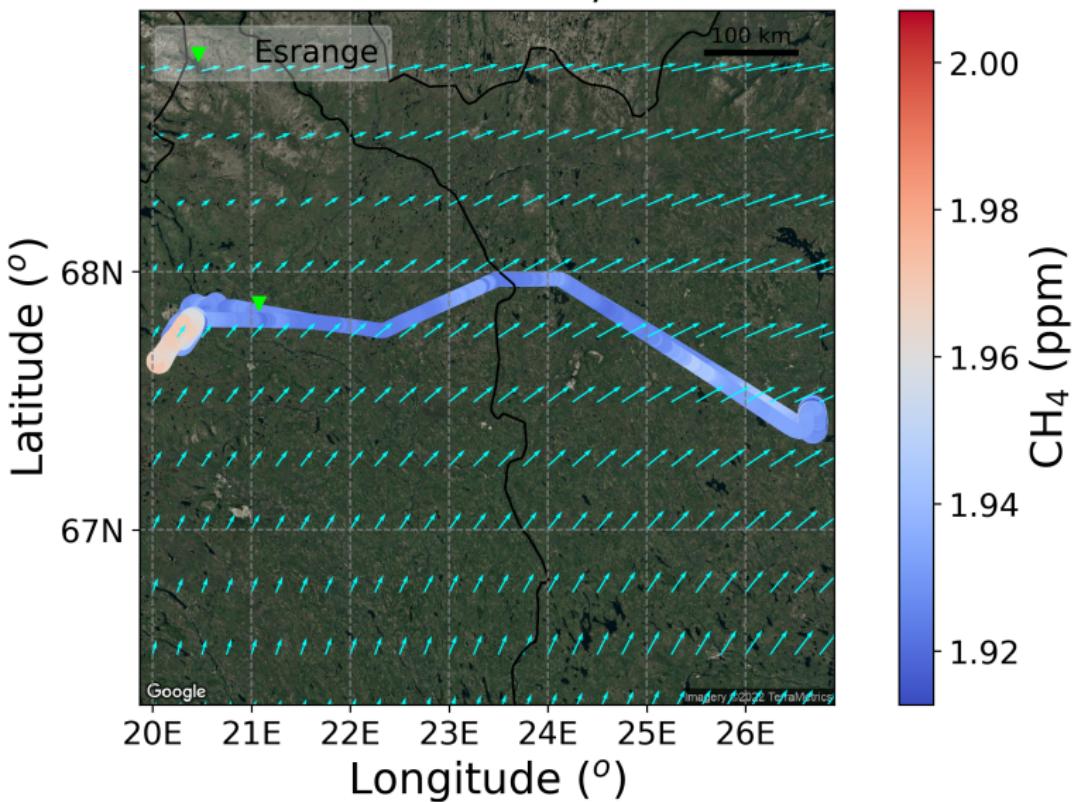
Sampling times (GPS synchronised clock) (seconds since 2021-08-17  
00 :00 :00 UTC)

- latitude : Latitude AIRINS (degree)
- longitude : Longitude AIRINS (degree)
- altitude : Altitude from AIRINS (meter)
- ven\_ddaipov\_comp\_1 : Wind direction (degree)
- ven\_ffaipov\_comp\_1 : Wind speed (m/s)
- ven\_uairov\_comp\_1 : Zonal wind component (m/s)
- ven\_wairov\_comp\_1 : Vertical wind component (m/s)
- air\_pressure : Front static pressure 1 (hPa)

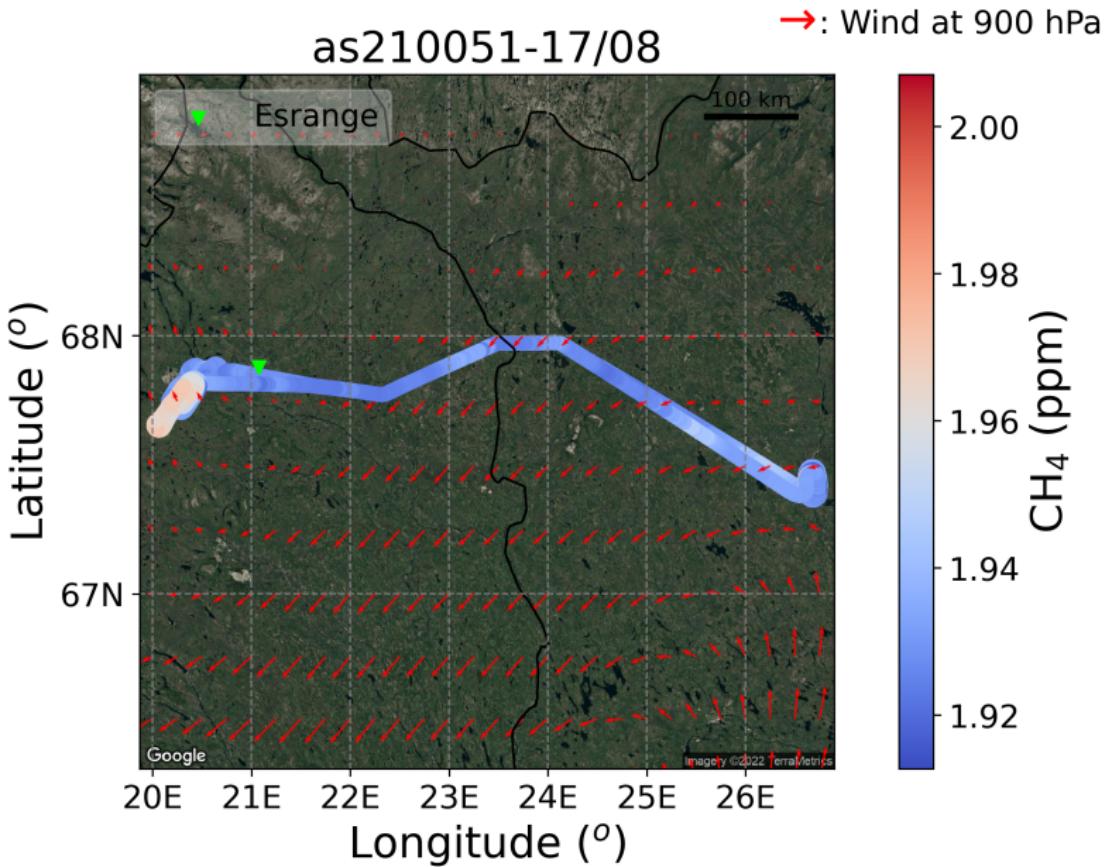
- chm\_CH4\_dry\_g2401m\_calsync\_1 : g2401m CH4\_dry synchronised on Sampling times (GPS synchronised clock) (ppmv)
- chm\_CO2\_dry\_g2401m\_calsync\_1 : g2401m CO2\_dry synchronised on Sampling times (GPS synchronised clock) (ppmv)
- chm\_CO\_g2401m\_calsync\_1 : g2401m CO synchronised on Sampling times (GPS synchronised clock) (ppmv)
- chm\_CO2\_dry\_esp1000\_calsync\_1 : esp1000 CO2\_dry synchronised on Sampling times (GPS synchronised clock) (ppmv)
- FILE START TIME (seconds since 2021-08-17 00:00:00 UTC) : 7.36660003
- FILE STOP TIME (seconds since 2021-08-17 00:00:00 UTC) : 11.23910001
- TAKE-OFF TIME (HHMMSS UTC) : 080556
- LANDING TIME (HHMMSS UTC) : 111142

as210051-17/08

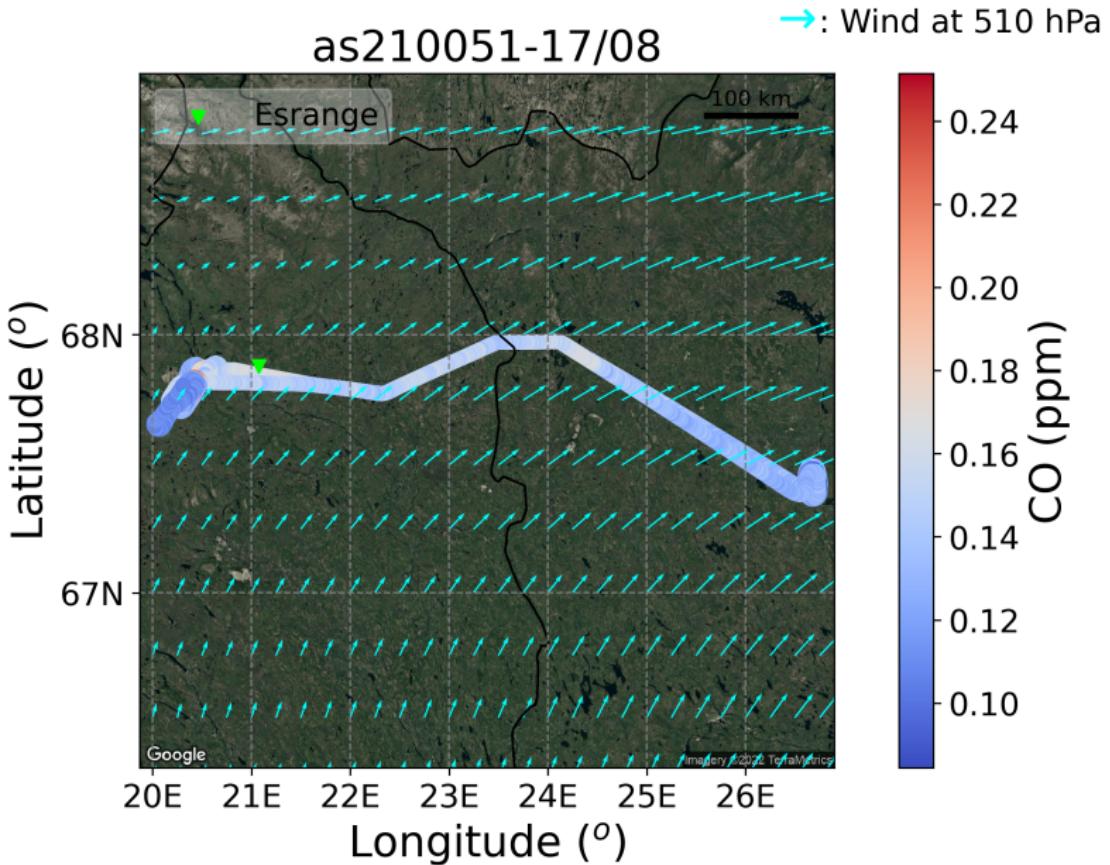
→: Wind at 510 hPa



$\text{CH}_4$



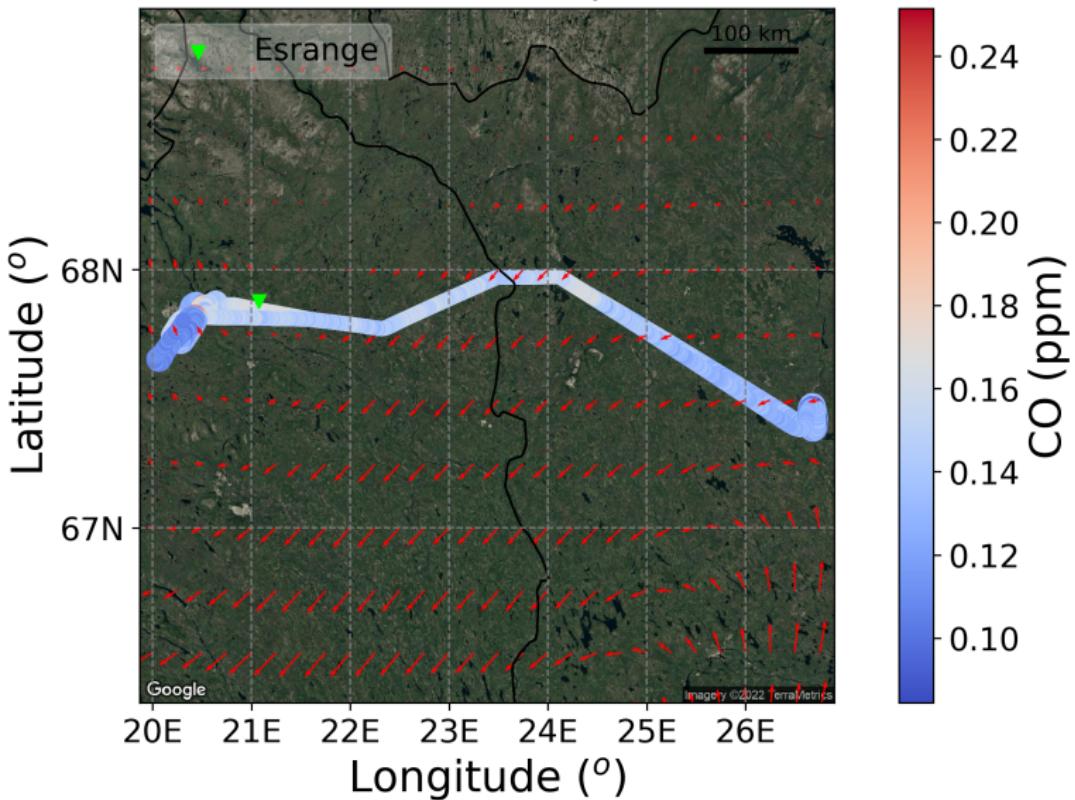
CO



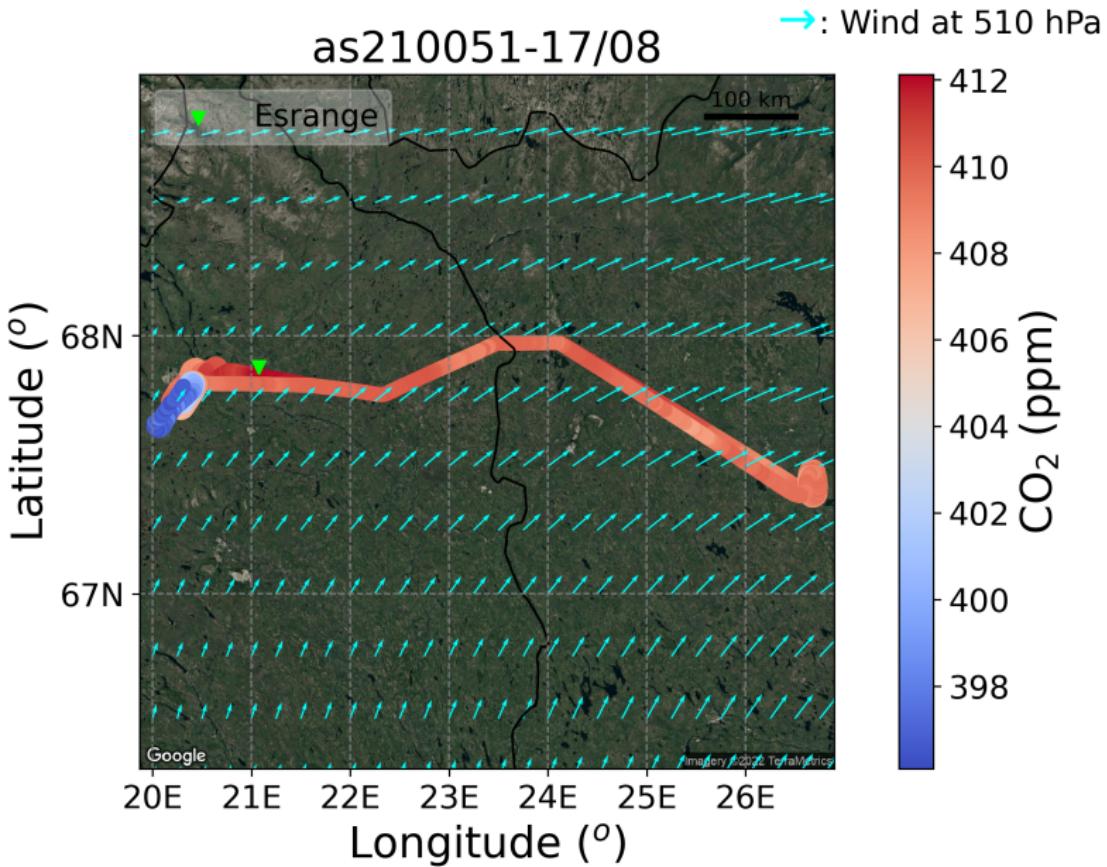
CO

as210051-17/08

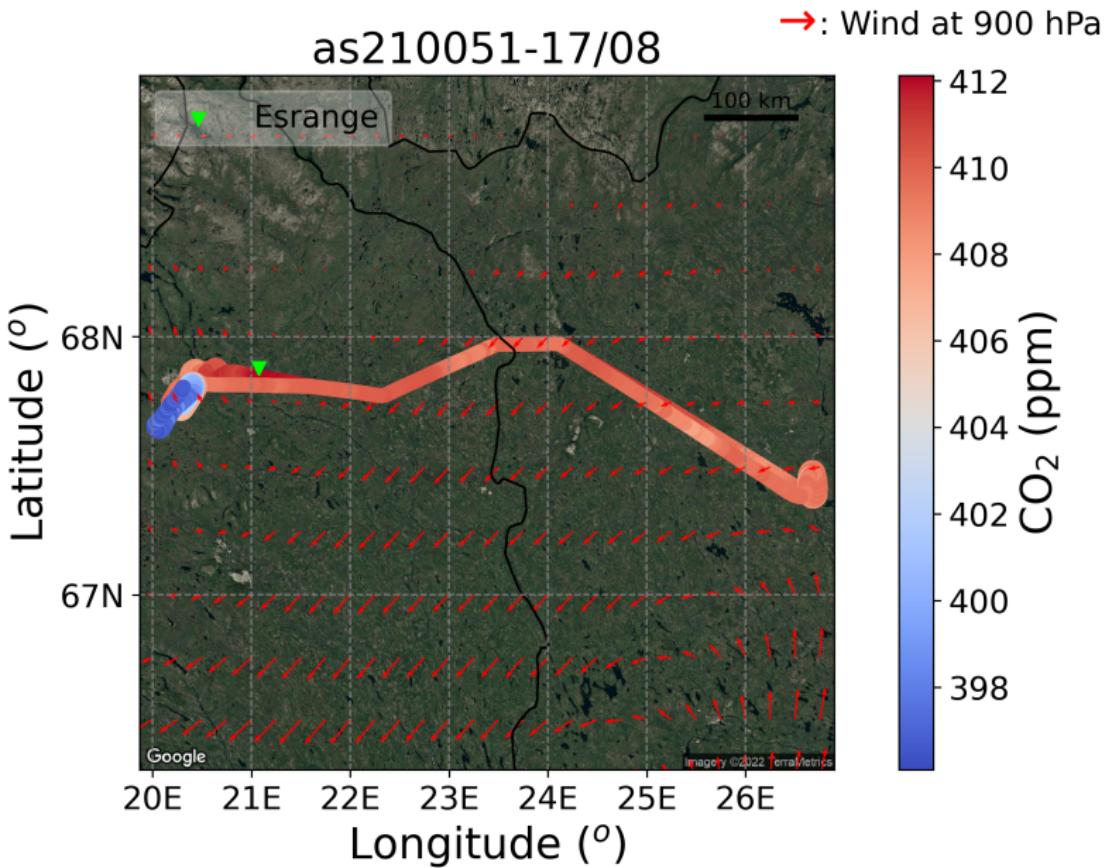
→: Wind at 900 hPa



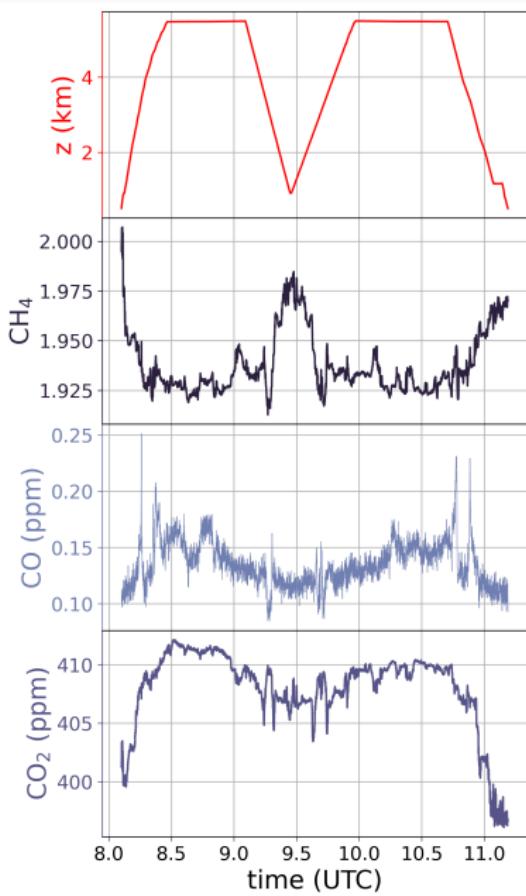
$\text{CO}_2$



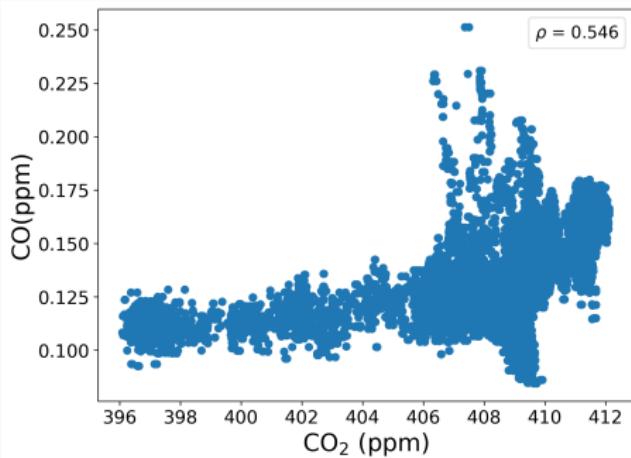
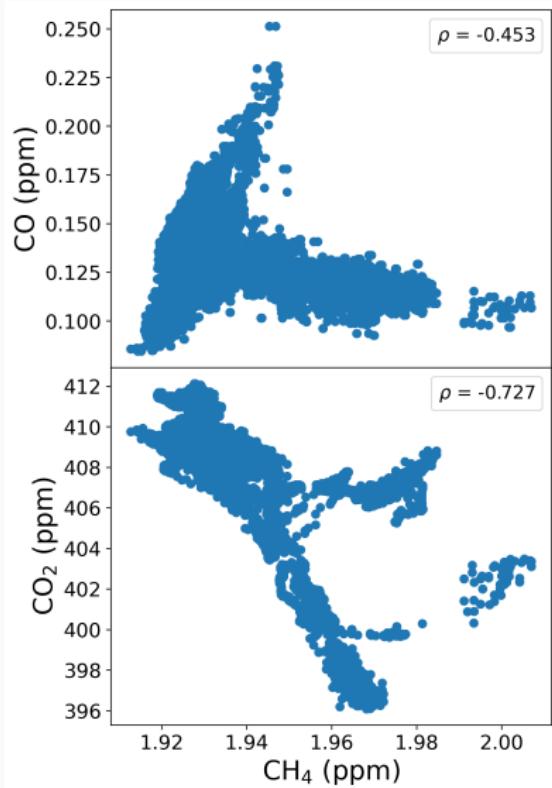
$\text{CO}_2$



# GHGs correlations



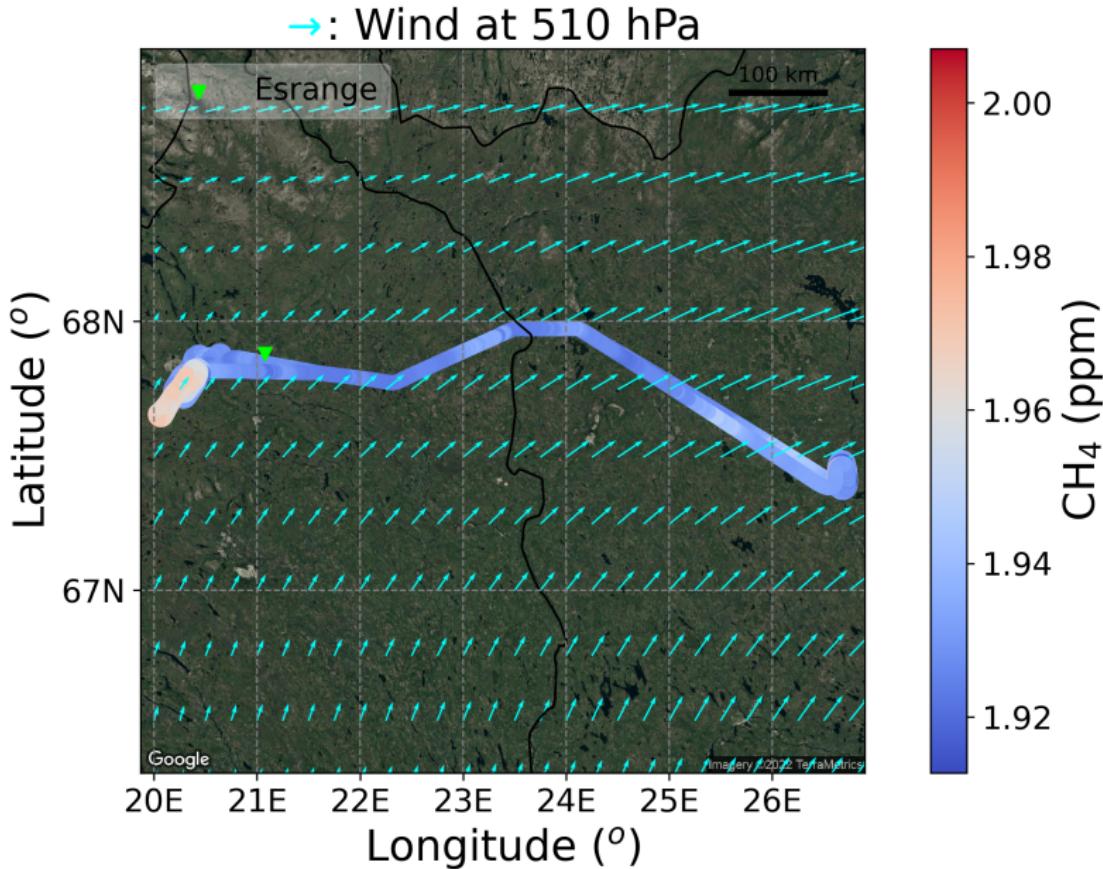
# GHGs correlations



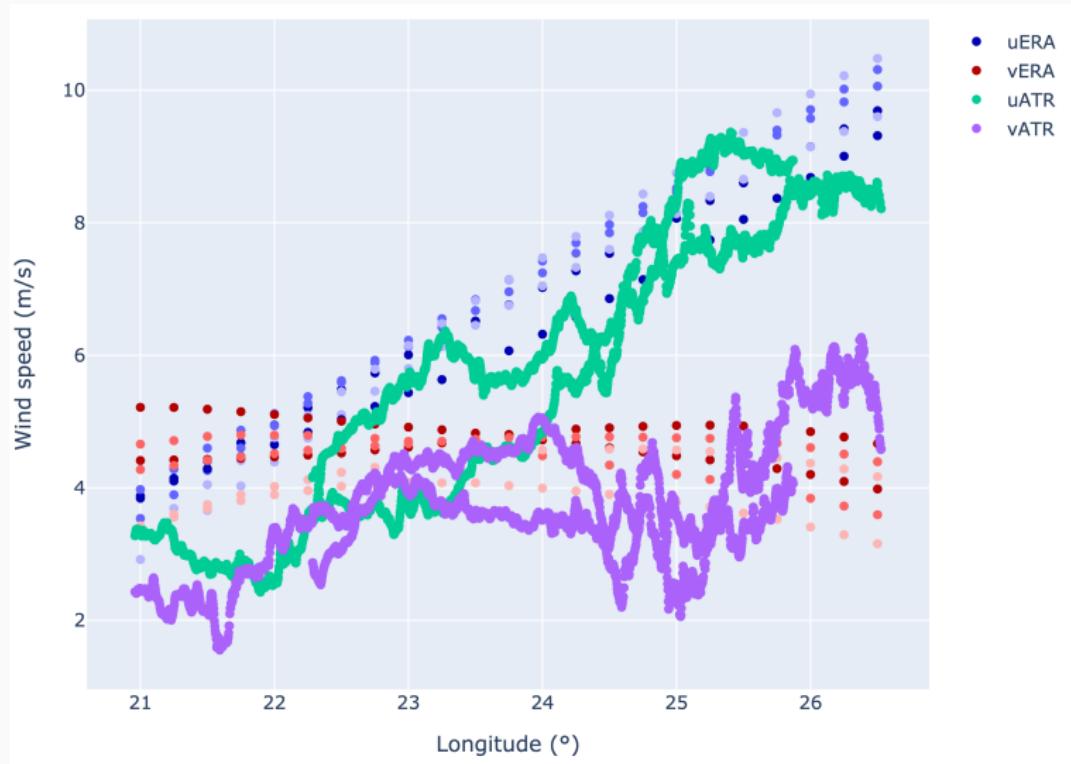
À faire :

- Regarder corrélations entre GES et T, RH
- Améliorer les domaines de comparaison

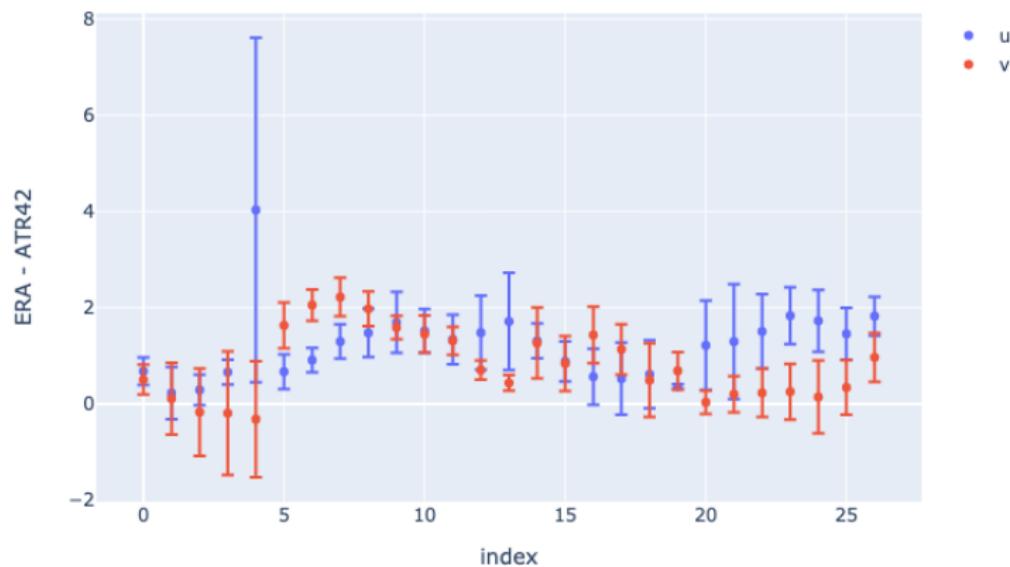
# Wind



# Wind

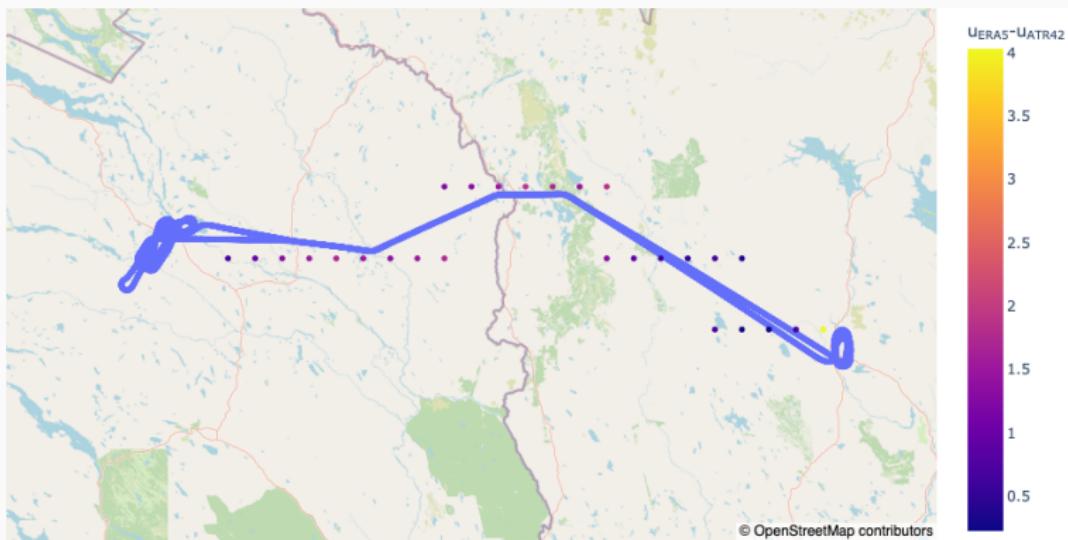


# Wind



Error bars calculated from combination of ERA and ATR42 sample  $\sigma_s$

# Wind



# Wind

