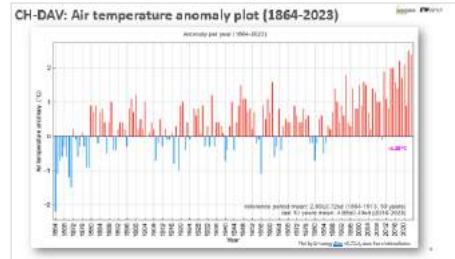


QA/QC Meeting 21 Mar 2024

Participants: LH, IF, PR, MR, PM, LK, LS, YW, KMK, FT (10)

General Info

- Attendance:** If you are invited to attend a QAVOC meeting or tell us if you can't, it is used for planning of the meetings.
- Event calendar:** If a lock icon shows presence information about your data webcams on the slide together with the date. You can also select the already available text as a part of previous meetings (links, documents).
- Feedback:** The purpose of QAVOC meetings is to discuss on current monitoring data, some feedbacks, focus on lock icon at right bar and icons in the group. Please are checked if the version "50" relates to be so.
- Questions:** There is a list of known variable observations that you can use if you wonder what an observation means. [Link to the observations](#)
- Check of IC metadata files:**
 - Recent metadata files for 50% and 100% data files and check if they look OK
 - Current IC raw data files are automatically converted to ASCII text files for the TDR script files
 - Check the data files for the field files, e.g. for CH-DAV: `grasslandsci/CH-DAV_Low-Altitude/IC_01/50m/IC01/50m_0101_0101`
- Weekly data collection via the web:**
 - Please calculate files and check observations per week, or more often if you wish to do so.
 - If you cannot calculate the files, try to find a substitute, e.g. US.
 - Make sure you can access the data from the web in the respective local time.
- Meta folder:** The folder `meta/50m/0101_0101_0101` is a temporary folder. Please use the folder `meta/50m/0101_0101_0101` for the data files in the database. The folder `meta/50m/0101_0101_0101` is used for the data files in the database. The folder `meta/50m/0101_0101_0101` is used for the data files in the database.
- Plot files:** The folder `meta/50m/0101_0101_0101` is a temporary folder. Please use the folder `meta/50m/0101_0101_0101` for the data files in the database. The folder `meta/50m/0101_0101_0101` is used for the data files in the database.
- List of QAVOC Meeting Dates:** [QAVOC Meeting 2024](#)



ALL SITES Recent webcam pictures



General Info

- **Attendance:** If you are (Tech-)SRP, please attend QA/QC meetings or tell LH if you can't, needed for planning of the meetings.
- **Short statement:** SRP & Tech-SRP: please prepare short statement about your site and post it on the slide together with the plot(s). You can also extend the already available text snippet(s) from previous meetings. (max. 2 sentences)
- **Purpose:** The purpose of QA/QC meetings is to check on current, incoming data. SRPs choose specific issues we should look at together and discuss in the group. Fluxes are checked if the respective SRP wishes to do so.
- **Variables:** There is a list of known variable abbreviations that you can use in case you wonder what an abbreviation means: [Variable Abbreviations](#)
- **Check of EC raw data files:**
 - Recommended check for SRPs and T-SRPS: take a look at EC raw data files and check if they look OK
 - Current EC raw data files are automatically converted to ASCII each day (done by the Python script bico)
 - Files and their plots can be found here, e.g. for CH-LAS:
`gl-processing\CH-LAS_Lae-Subcanopy\20_ec_fluxes\2022\raw_data_ascii`
- **Weekly flux calculations on the RDS:**
 - Please calculate fluxes and check them once per week, or more often if you wish to do so.
 - If you cannot calculate the fluxes, try to find a substitute, e.g. LH.
 - Please move your Level-0 results from the RDS to the respective Level-0 folder.
- **RDS folder:** The folder P:\Flux\RDS_calculations is a temporary folder. Please move Level-0 flux calculations (preliminary fluxes) to the Level-0 folder on gl-processing. For example, for CH-CHA move files to Z:\CH-CHA_Chamau\20_ec_fluxes\2022\Level-0 (gl-processing is mounted as drive Z in this example).
- The RDS now has access to the database. This means that we now have a shared working environment where we can run Jupyter notebooks.
- **FluxCoffee:** separate meetings to discuss data related issues, e.g. flux processing and technical issues, started and will continue to take place. There are extensive notes available in the Data/FluxCoffee group on Microsoft Teams.
- **List of QA/QC Meeting dates:** [QA/QC Meetings 2024](#)

Swiss FluxNet > Sites > SRP List

SRP List

An overview of all site-responsible persons (SRPs).

[PRINT](#) [EXCEL](#) [CSV](#) [COPY](#) [NEW ENTRY](#) [EDIT](#) [DELETE](#)

↓ Site	SRP	Tech-SRP	Notes
CH-AWS	KMK	PM	
CH-CHA	YW	PR	
CH-DAS	LK	PM	
CH-DAV	IF	PM	
CH-FOR	LA		
CH-FRU	SO	PR	LH still checking fluxes
CH-HON	LH		
CH-LAE	AS	TB	
CH-LAS	LS	TB	
CH-OE2	FT	MR	
CH-TAN	FT	MR	

Please fill in missing info:
who are the Tech-SRPs?



Processing Options

Statistical Analysis

Spectral Analysis and Corrections

Output Files

Raw Processing Options

Raw data processing

Wind speed measurement offsets

- Fix 'w boost' bug (Gill WindMaster and WindMaster Pro only)
- Angle-of-attack correction for wind components (Gill's only)
- Axis rotations for tilt correction

Method:
 Rotation method:

Turbulent fluctuations

Detrend method:

Time constant:

- Time lags compensation

Time lag detection method:

Compensation of density fluctuations

- Compensate density fluctuations (WPL terms)
- Add instrument sensible heat components, only for LI-7500

Surface temperature estimation: Simple linear regressions

Multiple regressions

Day time Night time

Bottom: $T_{wb} = 0.944 \cdot T_s + 2.57$

Top: $T_{wb} = 1.005 \cdot T_s + 0.24$

Spar: $T_{wb} = 1.010 \cdot T_s + 0.35$

Default values as from Burba et al. (2008)

Other options

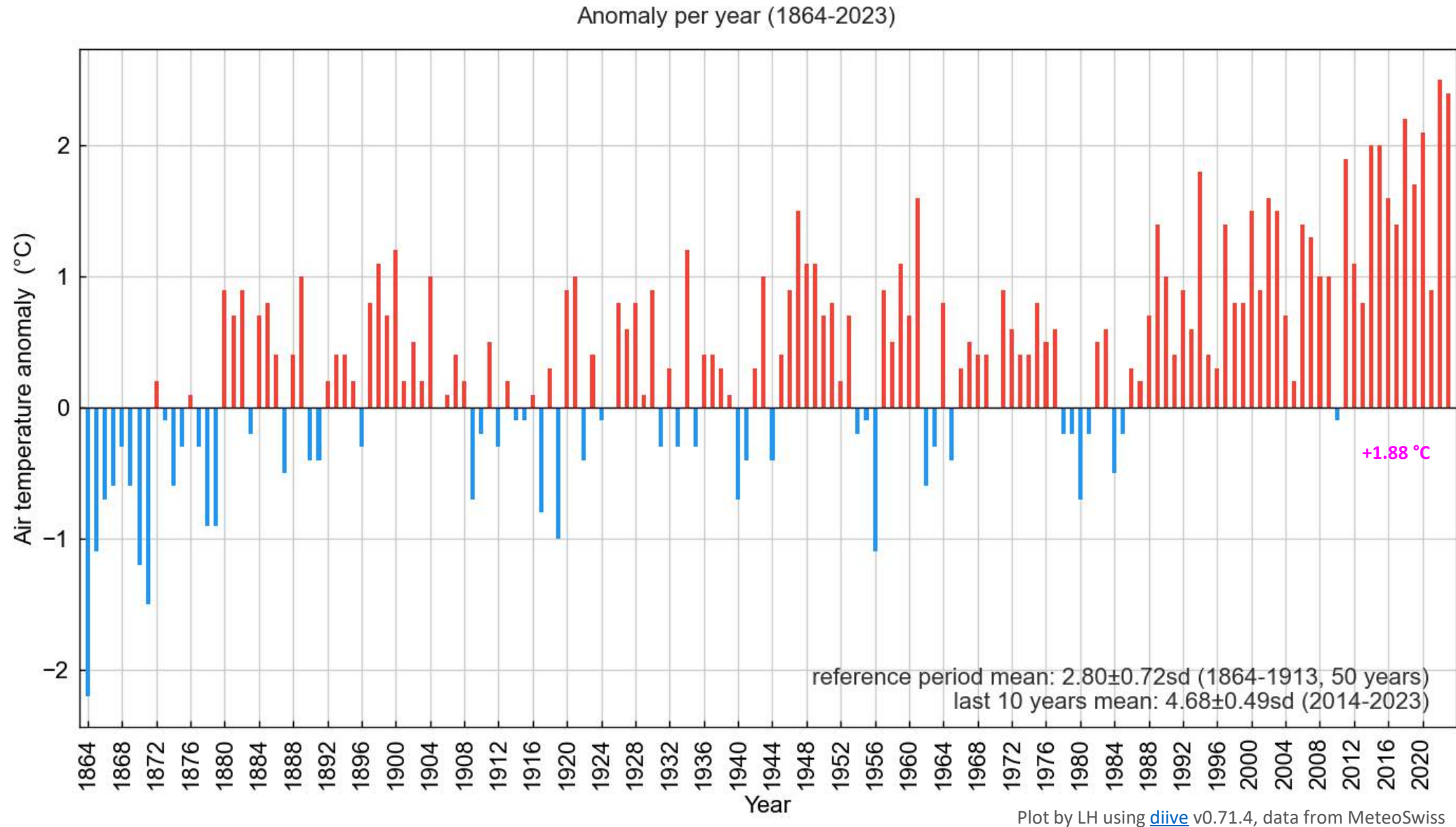
- Quality check
- Footprint estimation

Flagging policy:

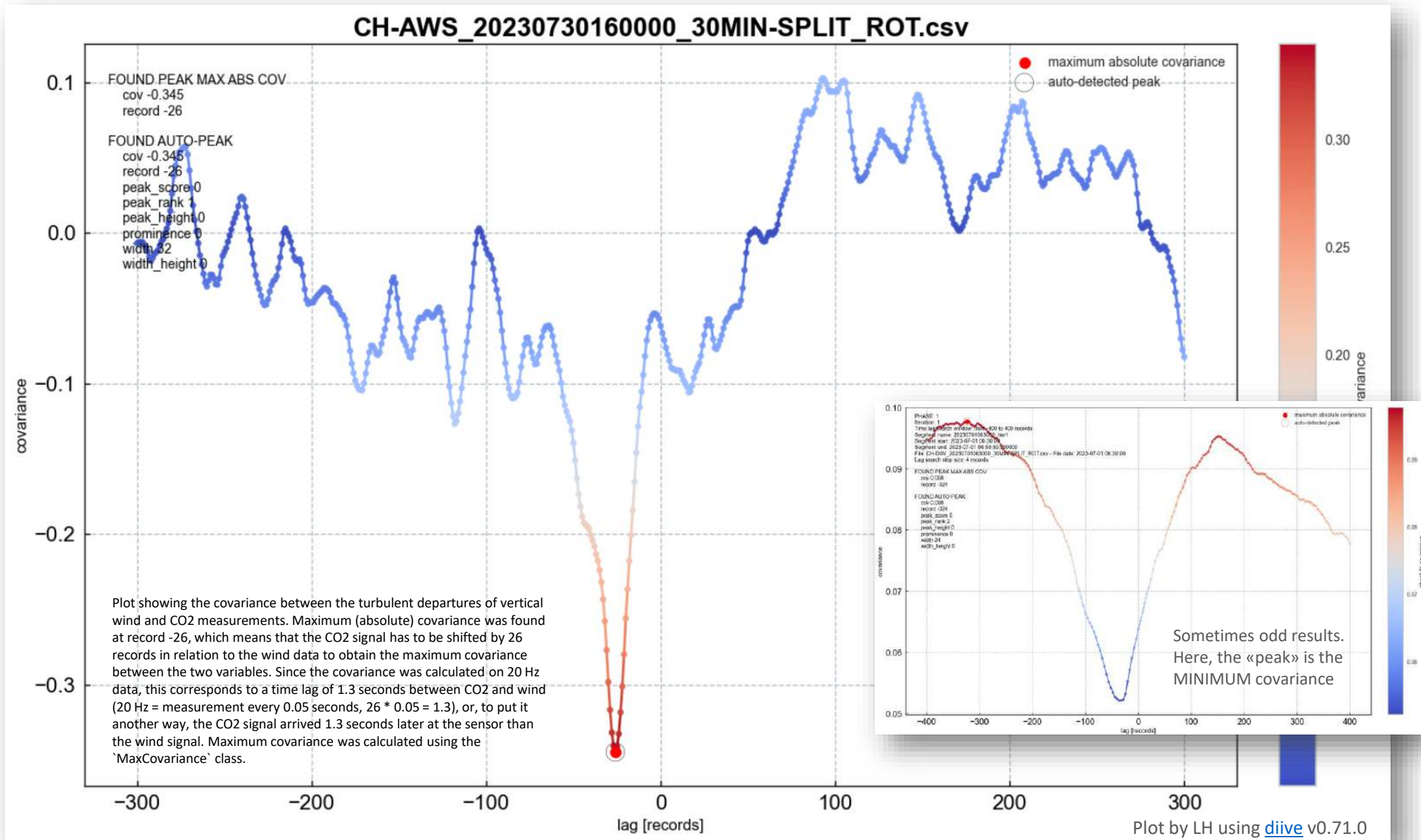
Footprint method:

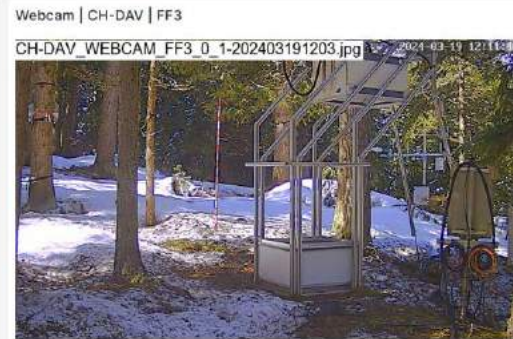
Maybe we can correct the the w offset issue during the affected time periods with this setting here?

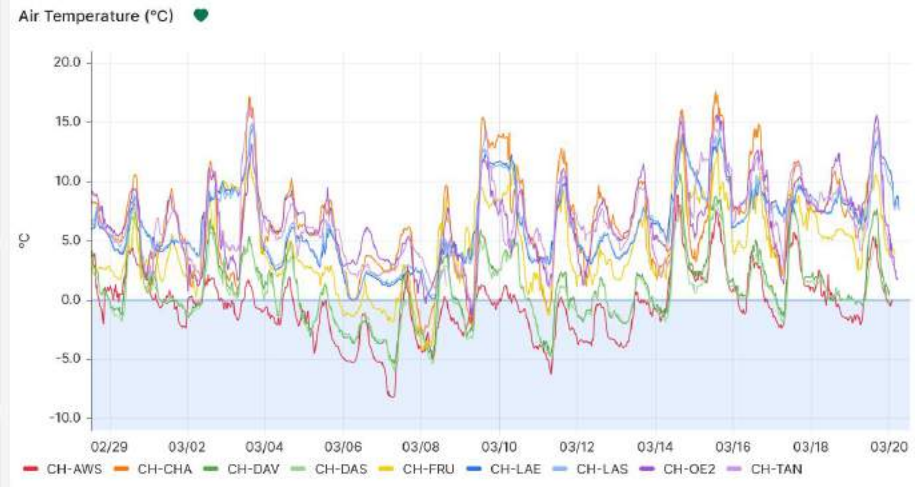
CH-DAV: Air temperature anomaly plot (1864-2023)



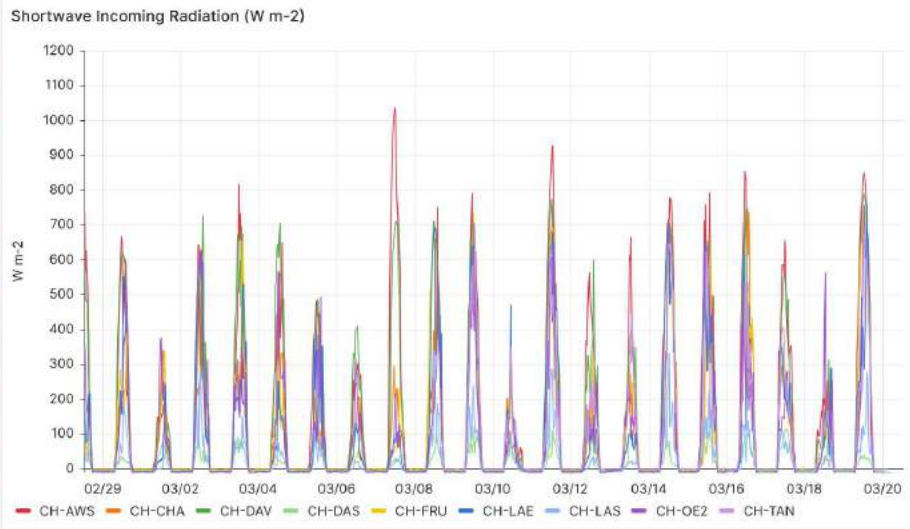
Covariance plot w_rot and CO2, one half-hour, 20Hz data



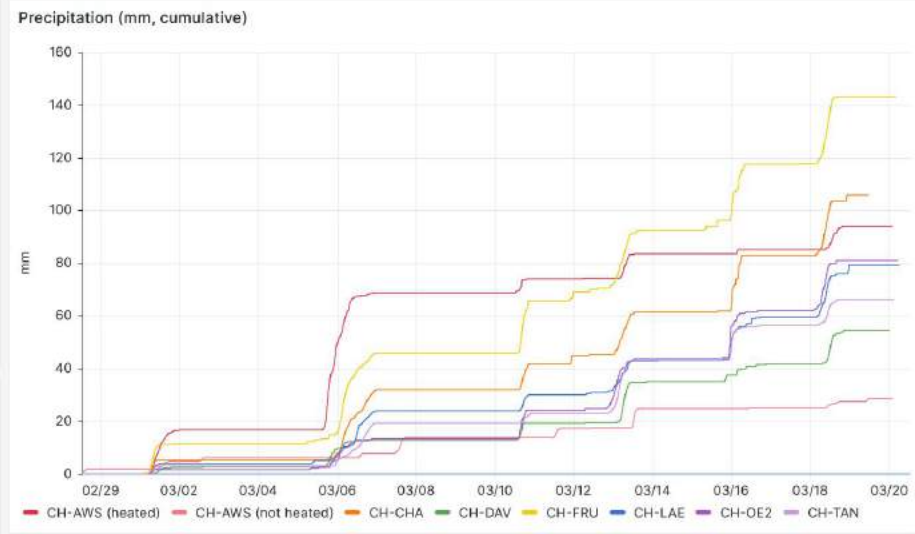




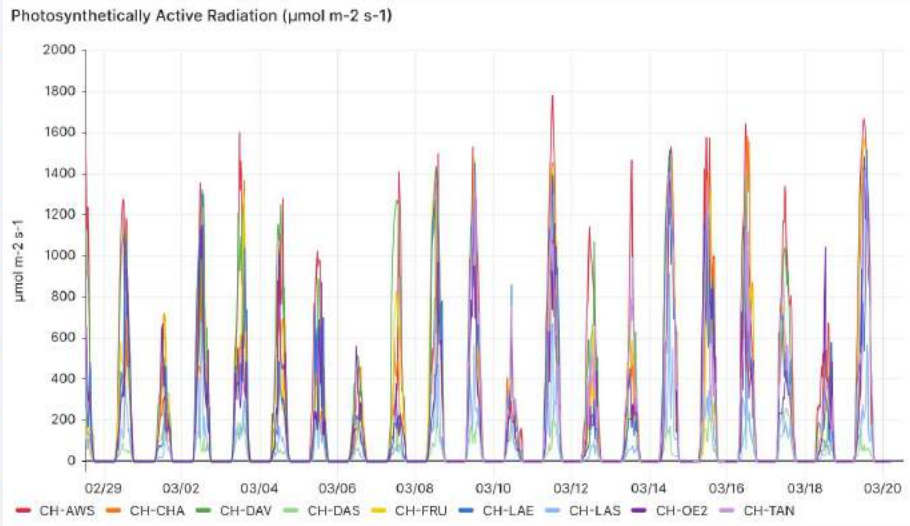
Min	Max
CH-AWS -8.4 °C	CH-AWS 12.6 °C
CH-CHA -3.0 °C	CH-CHA 18.0 °C
CH-DAV -6.2 °C	CH-DAV 11.2 °C
CH-DAS -6.3 °C	CH-DAS 8.6 °C
CH-FRU -4.7 °C	CH-FRU 15.8 °C
CH-LAE 0.1 °C	CH-LAE 15.1 °C
CH-LAS 0.0 °C	CH-LAS 15.3 °C
CH-OE2 -2.1 °C	CH-OE2 16.3 °C
CH-TAN -1.5 °C	CH-TAN 17.0 °C



Max
CH-AWS 1197 W/m ²
CH-CHA 987 W/m ²
CH-DAV 1240 W/m ²
CH-DAS 452 W/m ²
CH-FRU 982 W/m ²
CH-LAE 959 W/m ²
CH-LAS 583 W/m ²
CH-OE2 1014 W/m ²
CH-TAN 951 W/m ²



Total (mm)
CH-AWS (heated) 94 mm
CH-AWS (not heated) 29 mm
CH-CHA 106 mm
CH-DAV 55 mm
CH-FRU 143 mm
CH-LAE 80 mm
CH-OE2 81 mm



Max
CH-AWS 2349
CH-CHA 2036
CH-DAV 2314
CH-DAS 1105
CH-FRU 2022
CH-LAE 1939
CH-LAS 1360
CH-OE2 1885

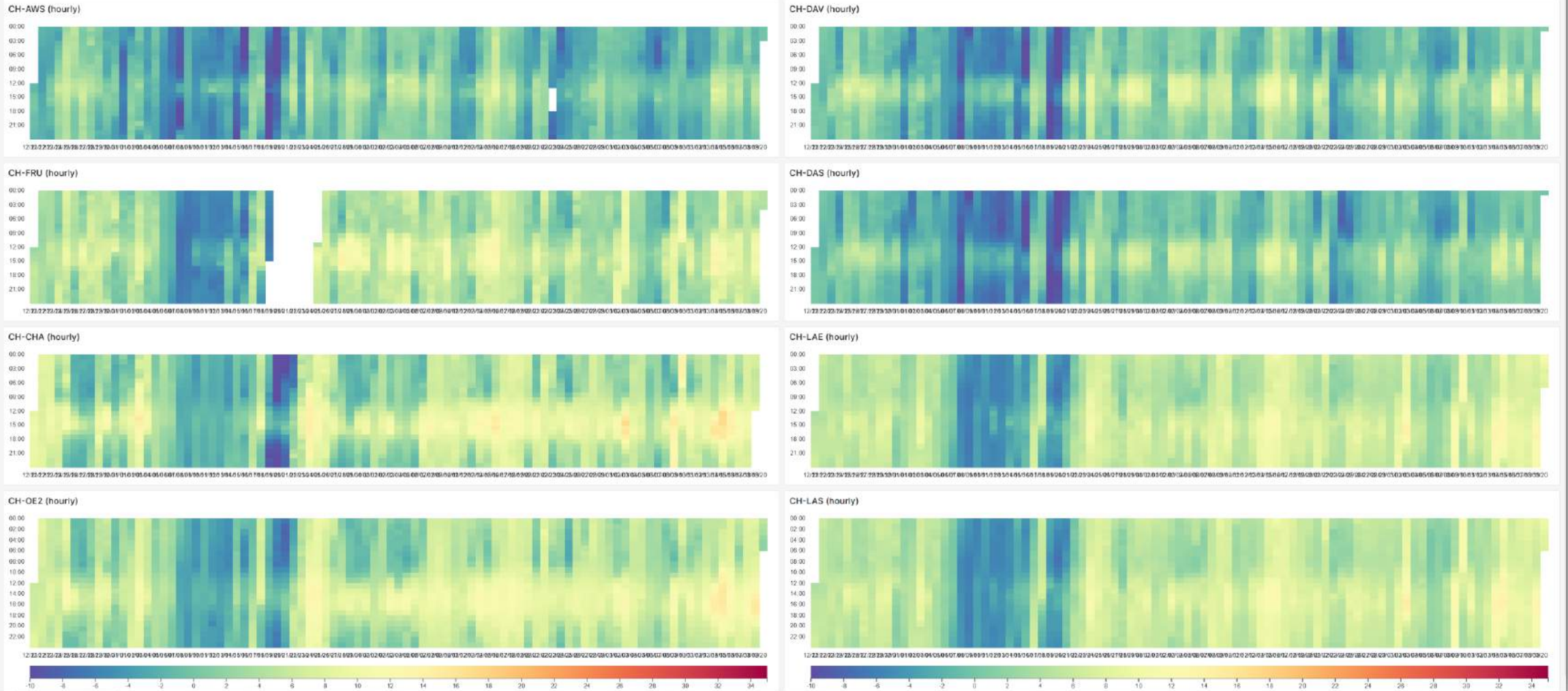
CO2 Fluxes (μmol CO2 m⁻² s⁻¹)

<https://dataviews.swissfluxnet.ethz.ch>

```
[holukas@grasslandserver ~]$ df -h
Filesystem                                Size  Used Avail Use% Mounted on
devtmpfs                                  63G   0    63G   0% /dev
tmpfs                                      63G  144K   63G   1% /dev/shm
tmpfs                                      63G  1.5G   62G   3% /run
tmpfs                                      63G   0    63G   0% /sys/fs/cgroup
/dev/sda2                                  77G   61G   12G   84% /
/dev/sda1                                  477M  198M  254M  44% /boot
/dev/sdc1                                  207G  140G   57G   72% /export
hest.nas.ethz.ch:/fs1201/green_groups_gl_processing 6.9T  5.5T  1.4T  81% /mnt/gl-processing
hest.nas.ethz.ch:/fs1201/green_groups_gl_rawdata    8.8T  6.6T  2.3T  75% /mnt/gl-raw-data
hest.nas.ethz.ch:/fs1201/green_groups_gl_data/PAY   500G  356G  145G  72% /export/home/UPLOAD_ICOS/PAY
tmpfs                                           13G   12K   13G   1% /run/user/66119
tmpfs                                           13G   32K   13G   1% /run/user/200785
tmpfs                                           13G  4.0K   13G   1% /run/user/158699
tmpfs                                           13G  4.0K   13G   1% /run/user/541795
tmpfs                                           13G   0    13G   0% /run/user/127995
```

CH-PAY occupies a lot of disk space on /export

Air Temperature: Last 90 days

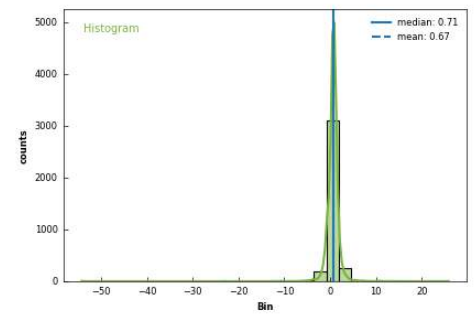
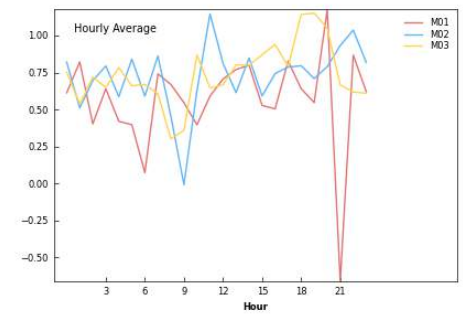
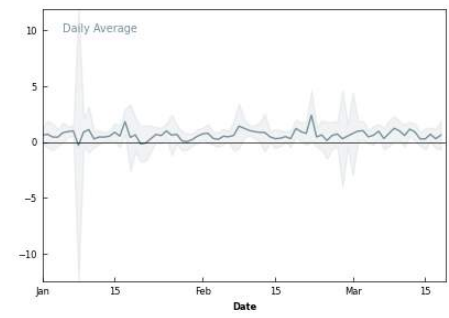
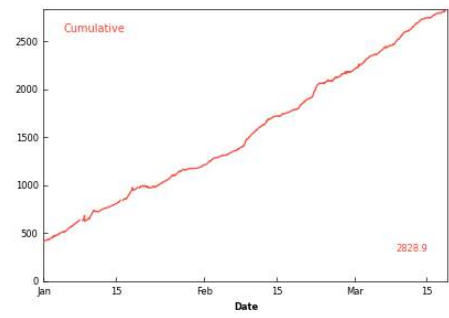
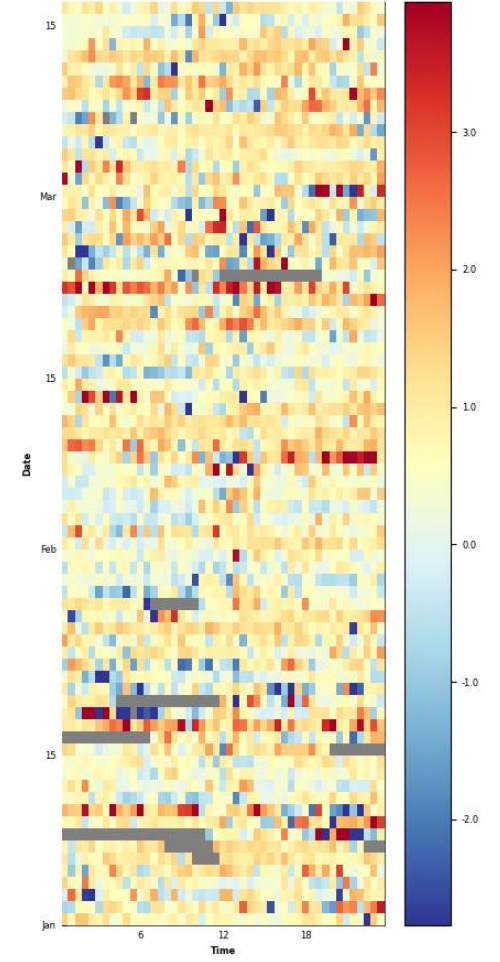
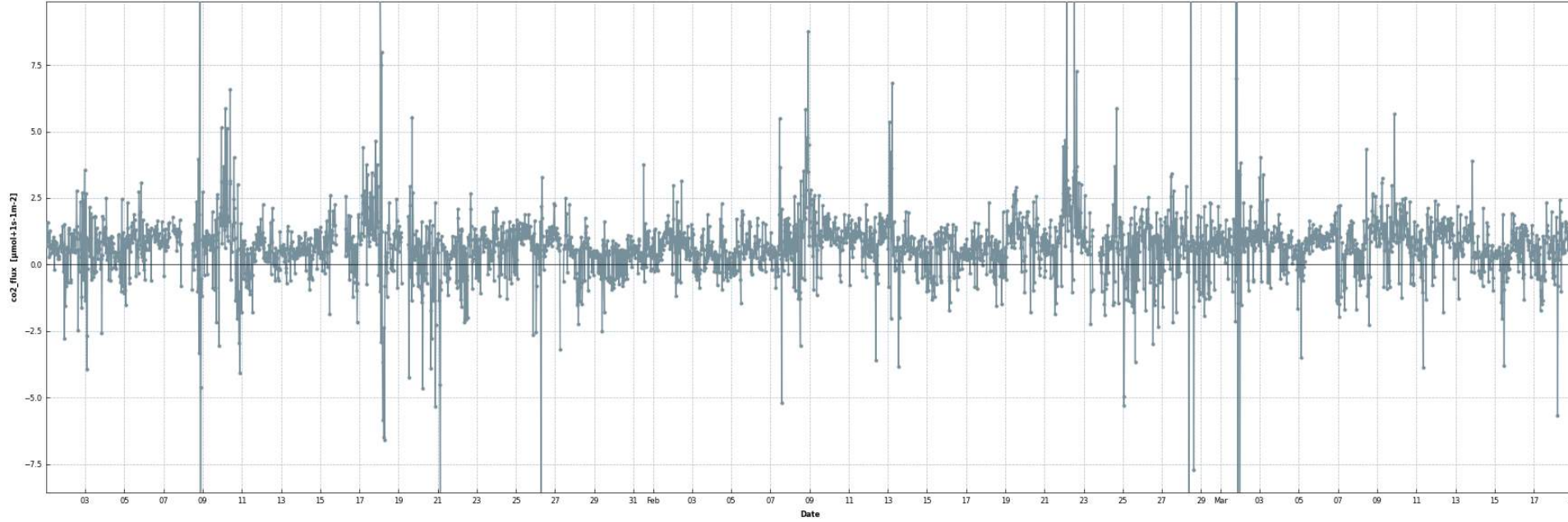


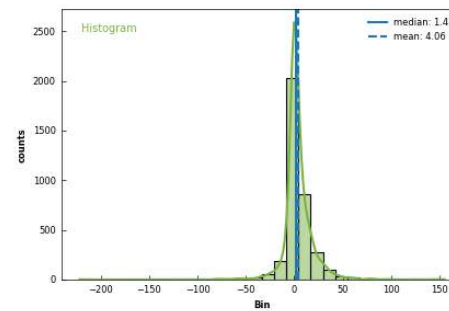
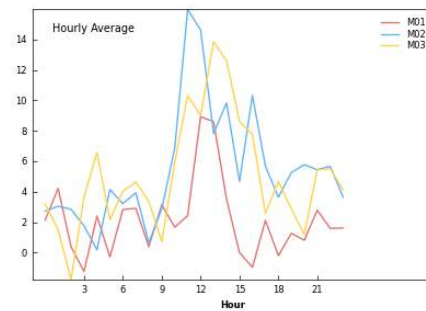
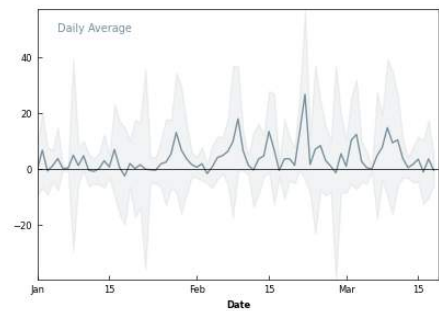
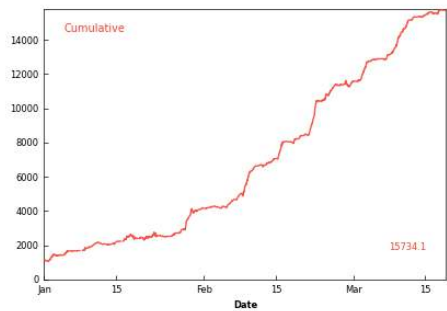
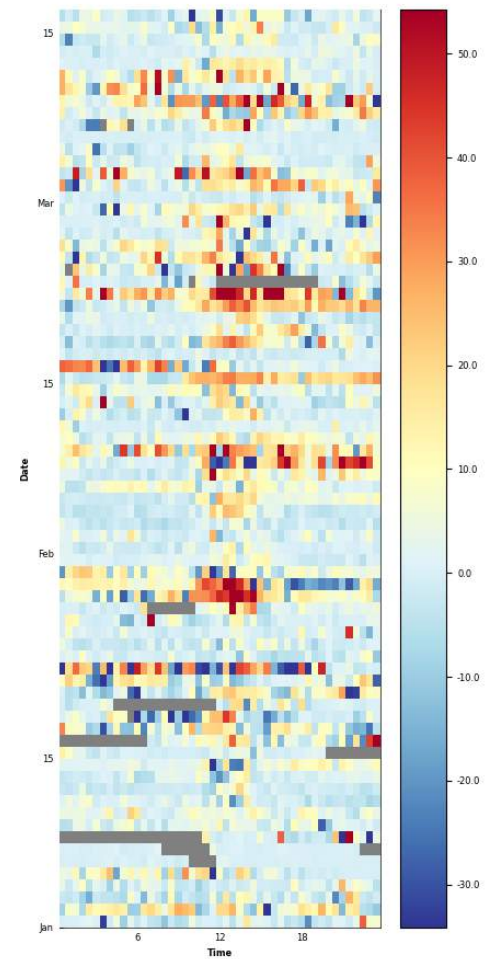
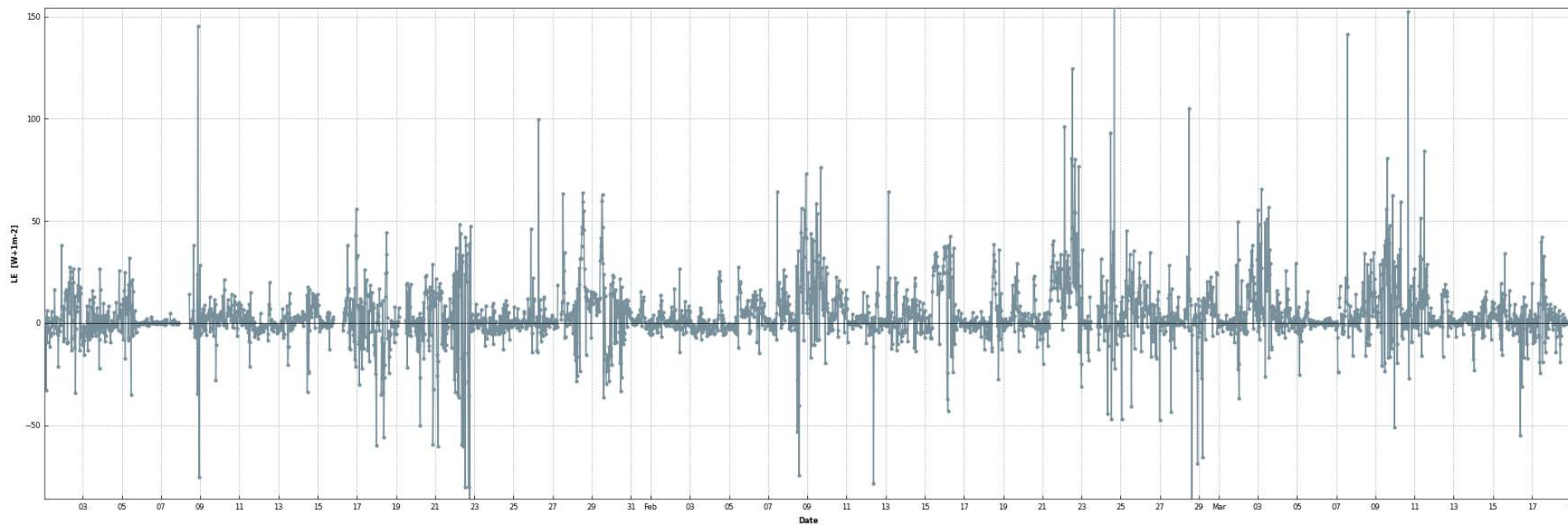


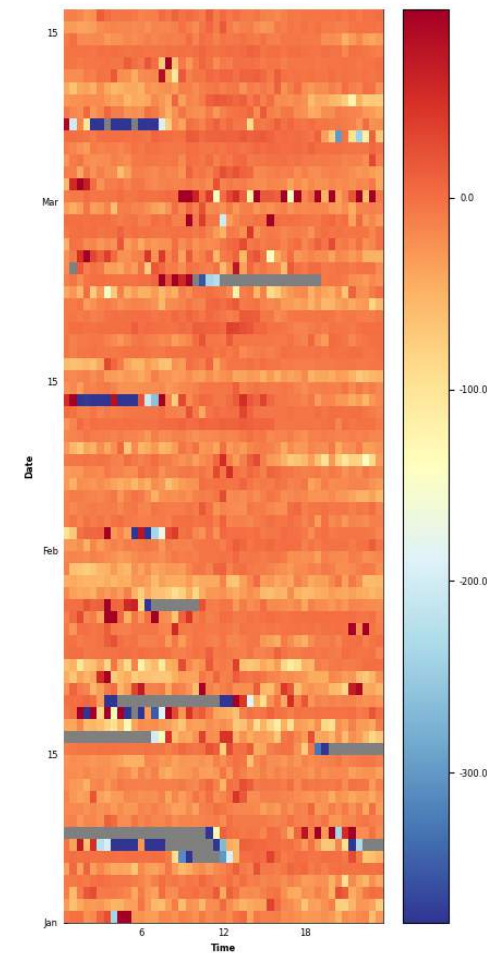
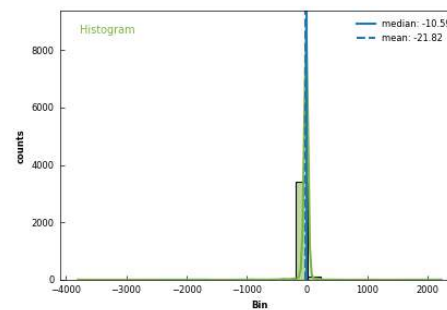
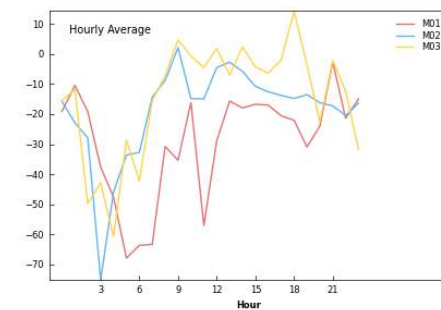
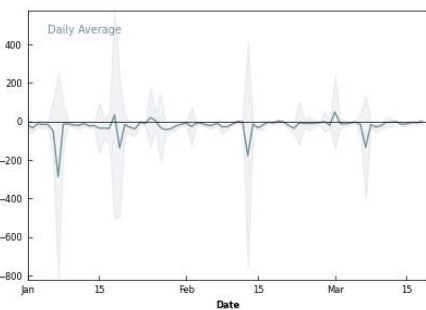
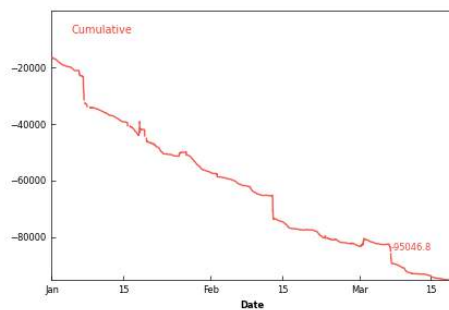
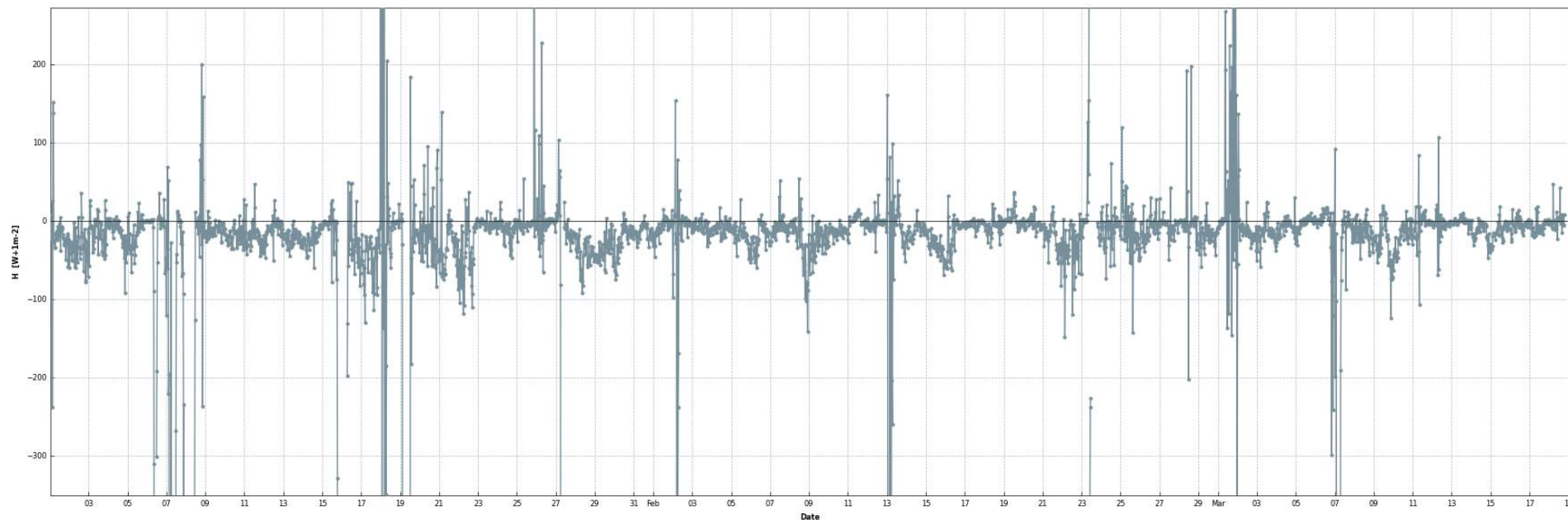
If you calculate fluxes on the RDS, please move results to GL-PROCESSING

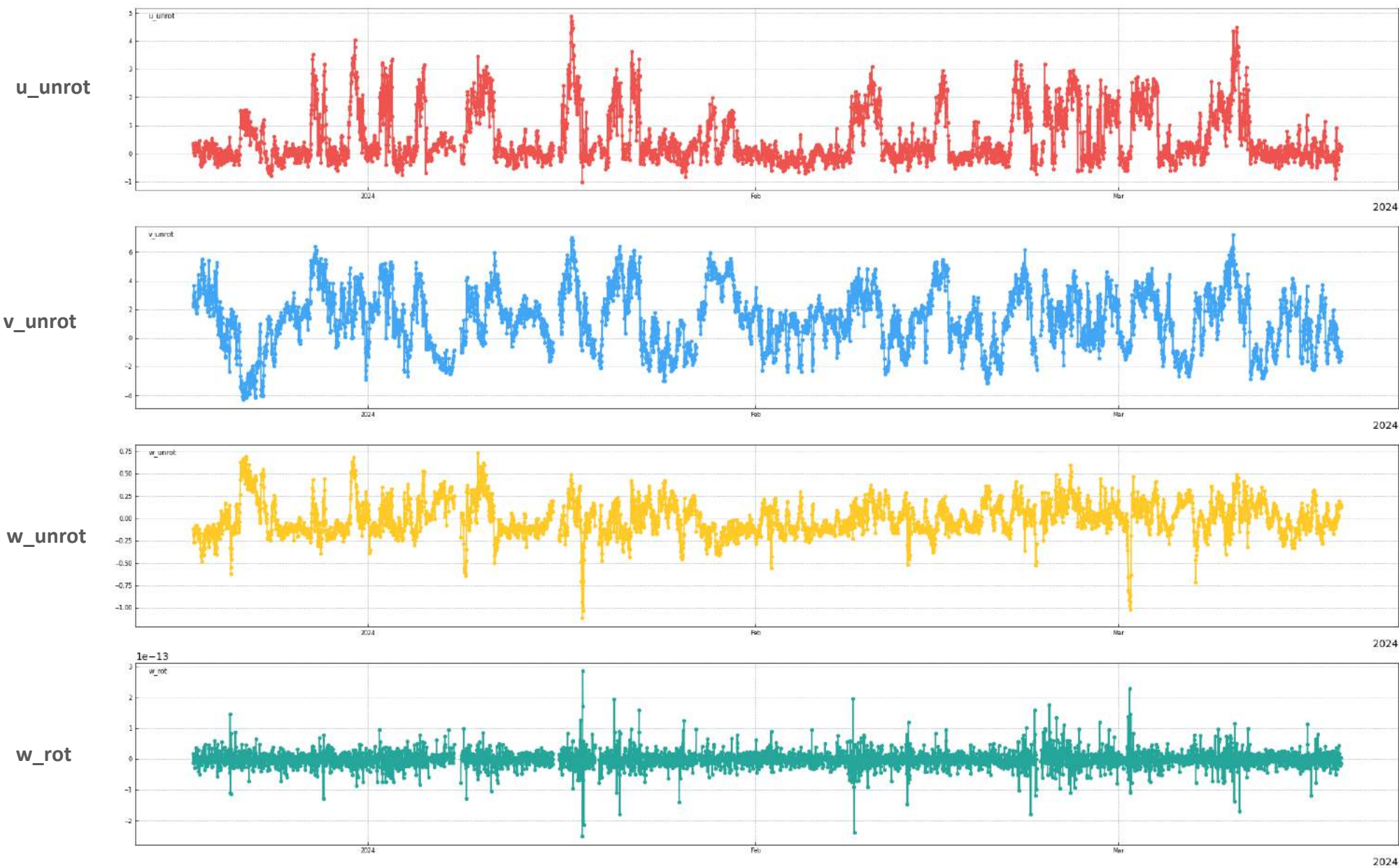


CH-AWS CO2 flux

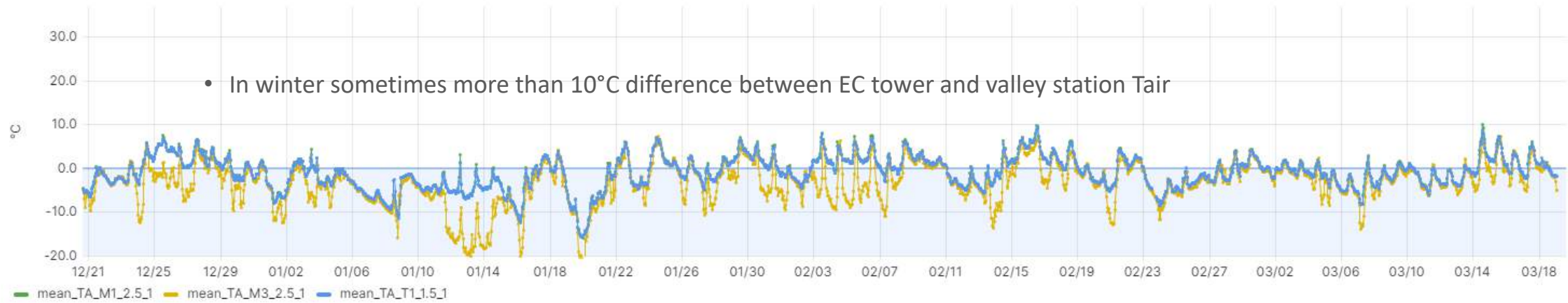








TA [all available for selected site]



TS (all available for selected site)

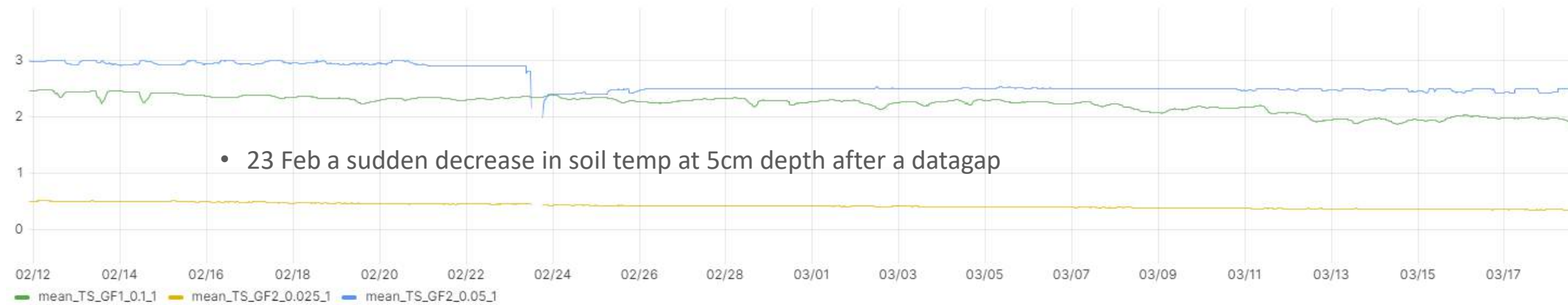


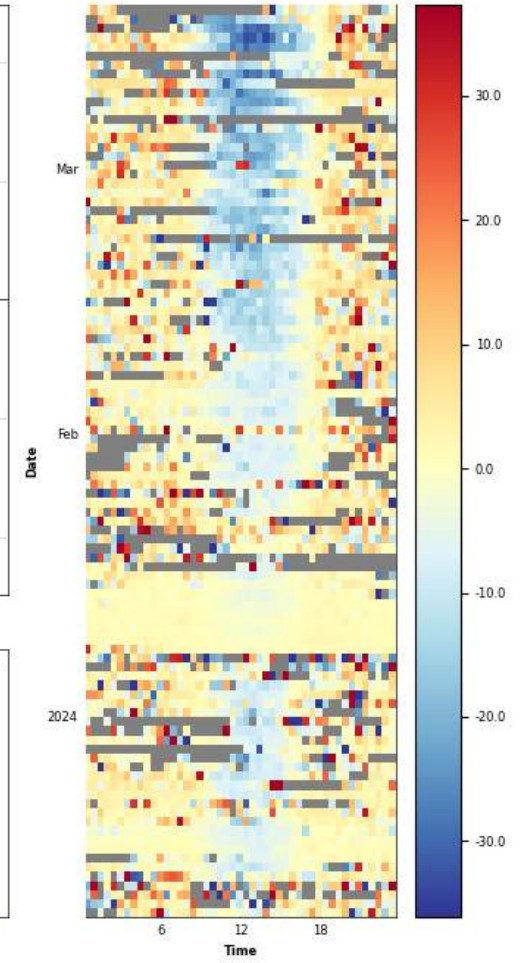
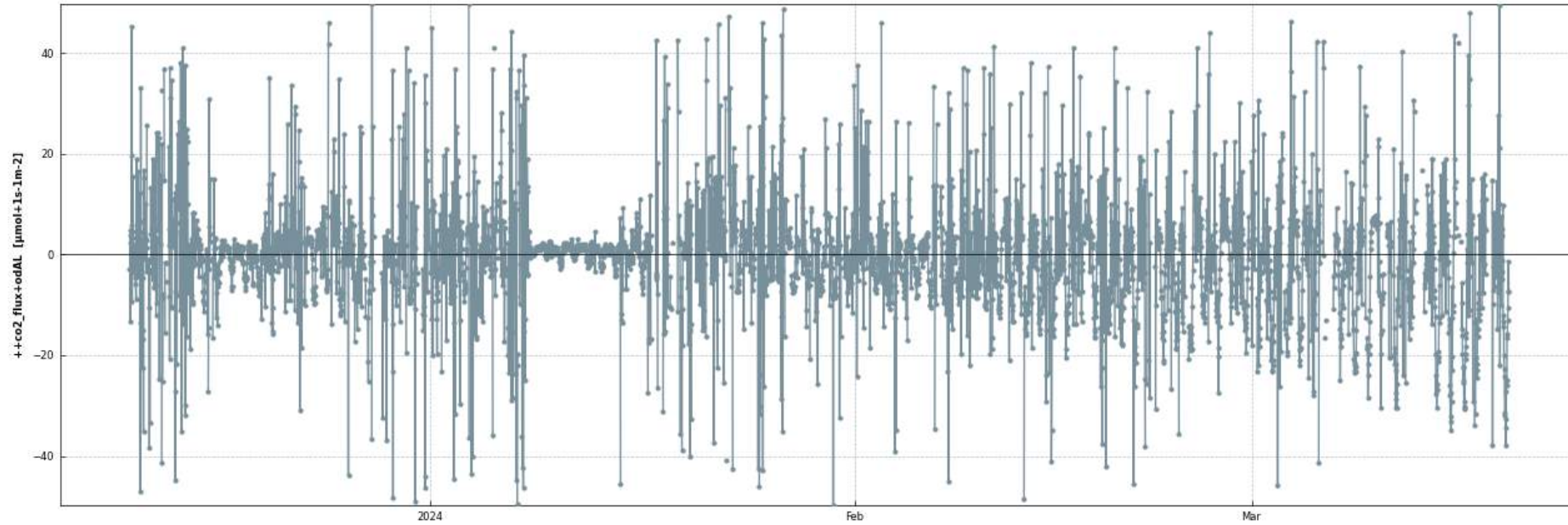


Photo: Lukas Hörtnagl

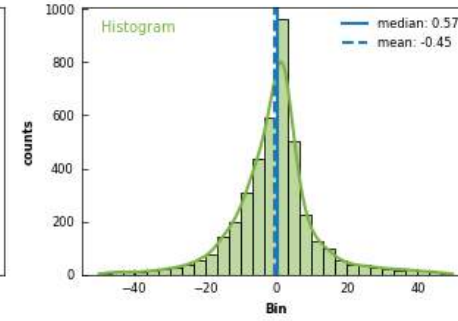
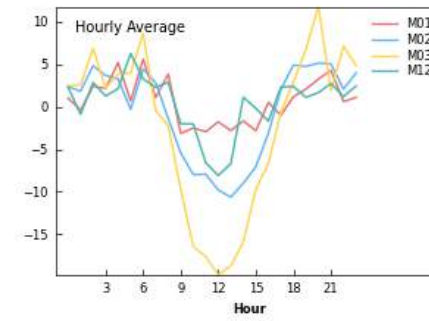
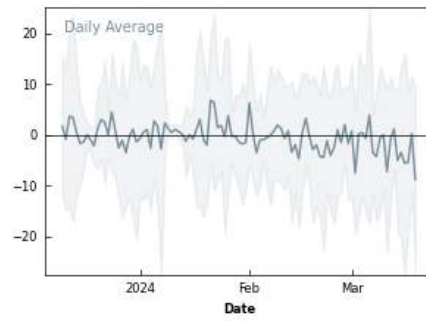
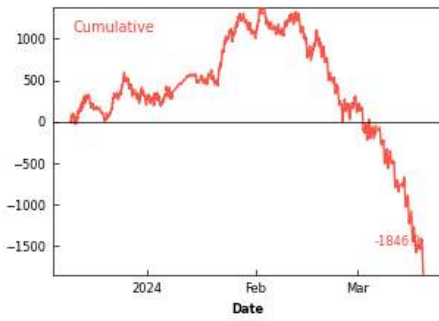
CH-CHA CO₂ flux

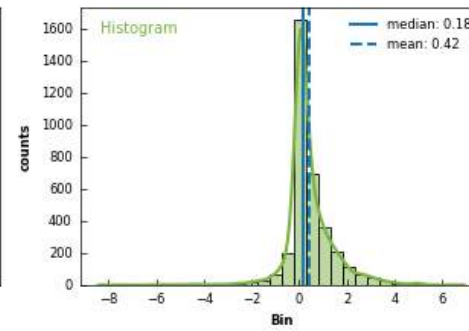
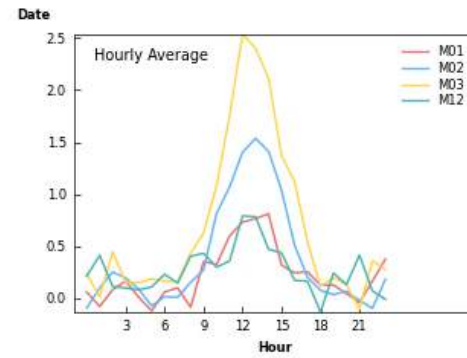
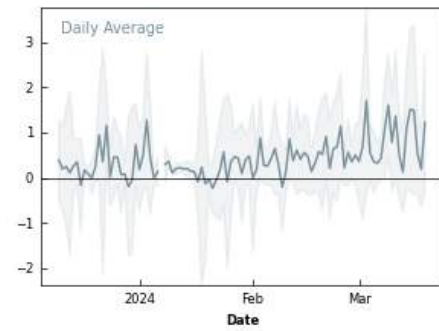
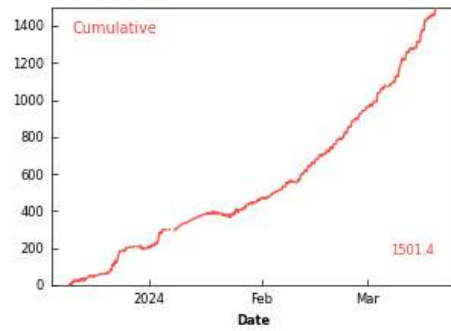
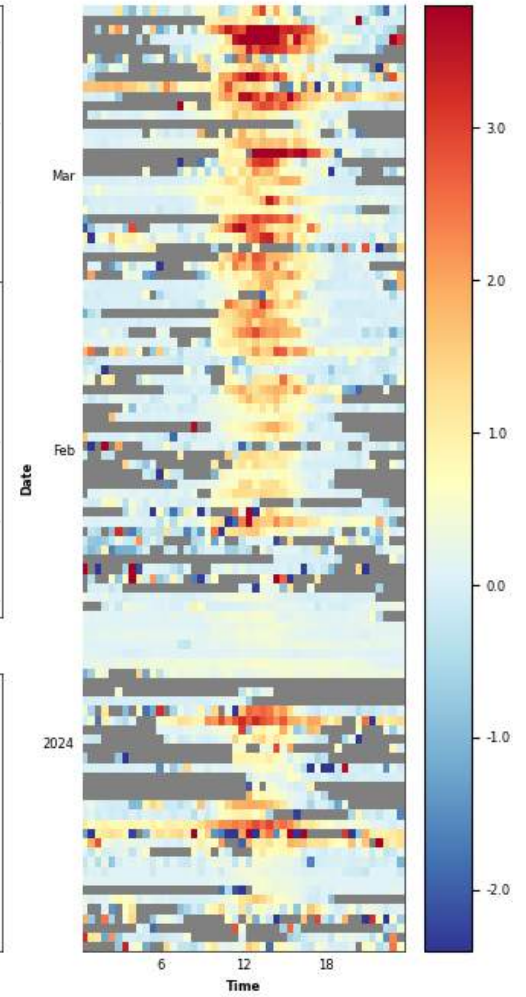
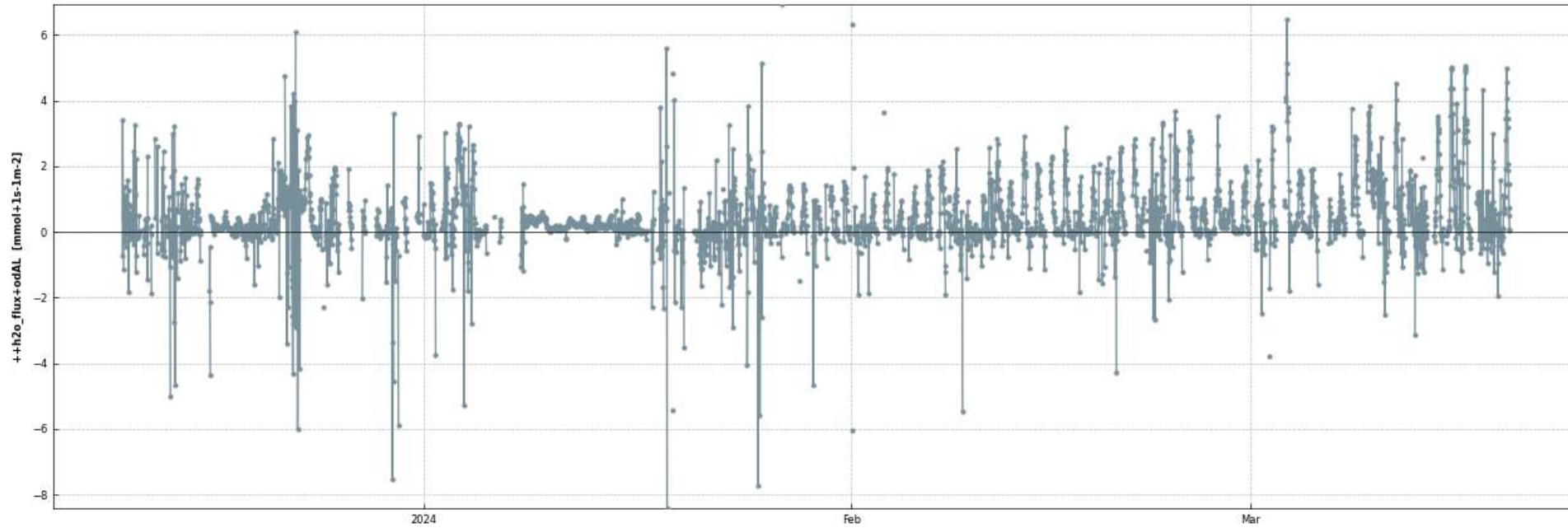


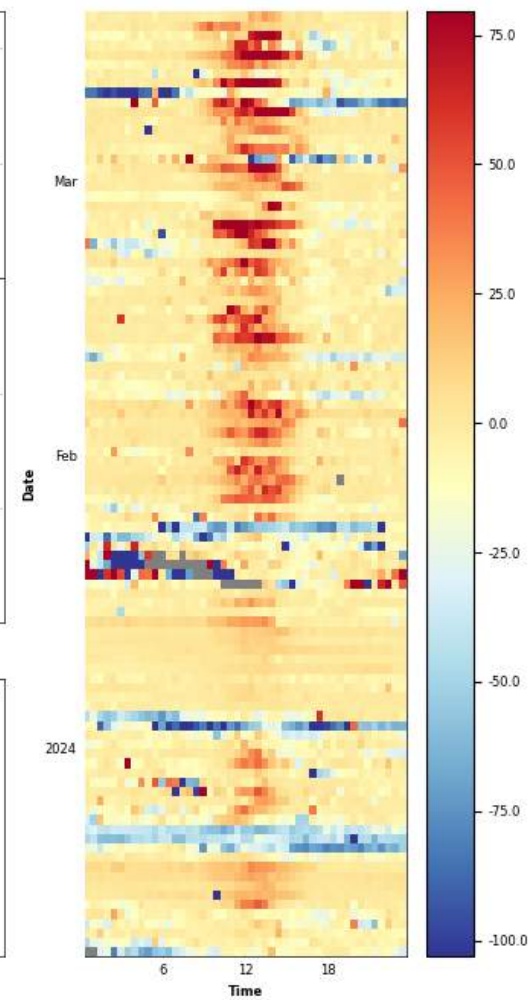
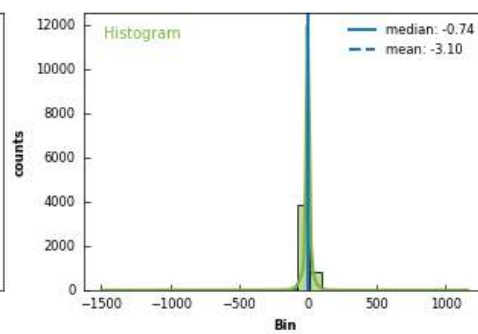
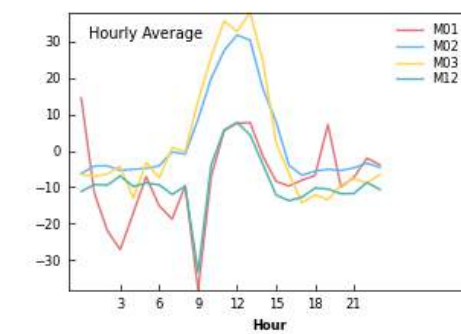
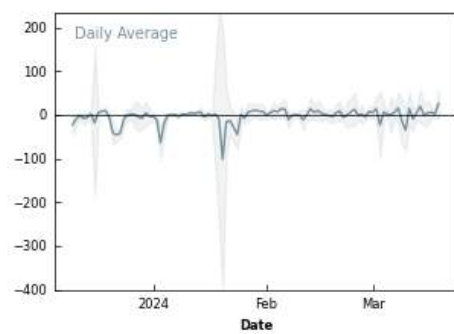
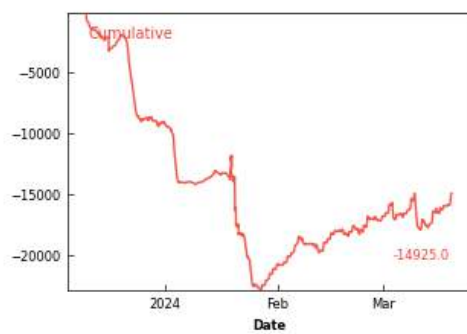
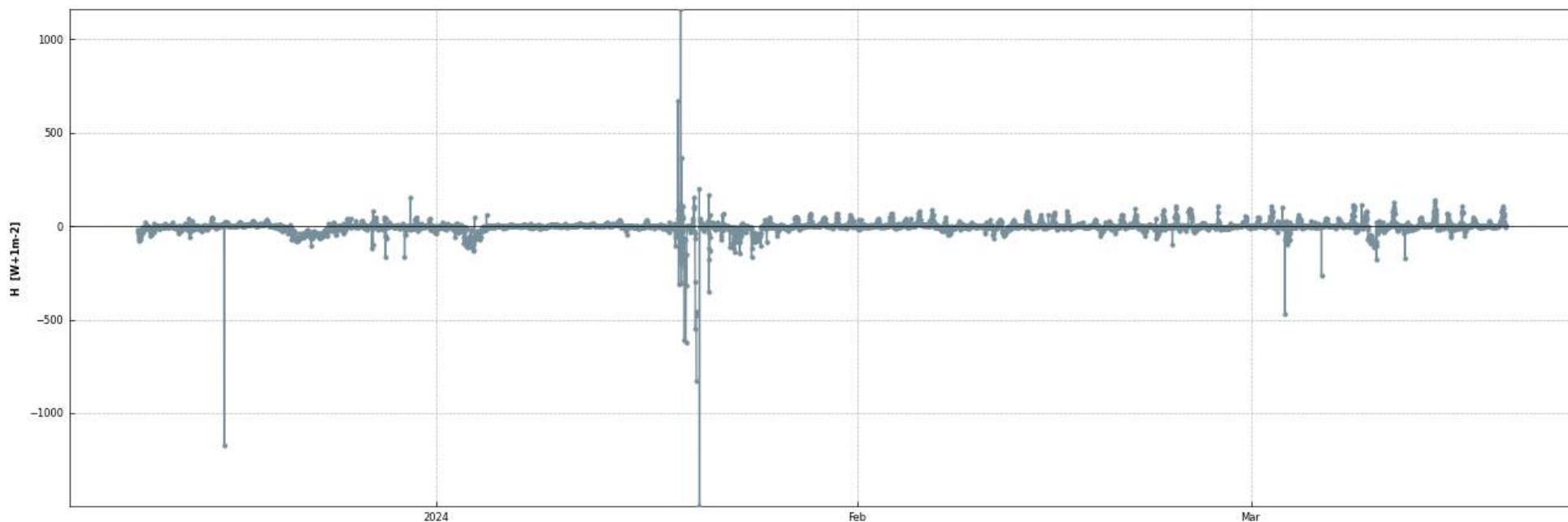
- 1st mowing: 2023.05.04
- 2nd mowing: 2023.06.11
- 3rd mowing: 2023.07.13
- 4th mowing: 2023.08.08
- 5th mowing: 2023.09.25
- 6th mowing: 2023.10.28
- Grazing: 2024.01.20 - 2024.01.23



Date







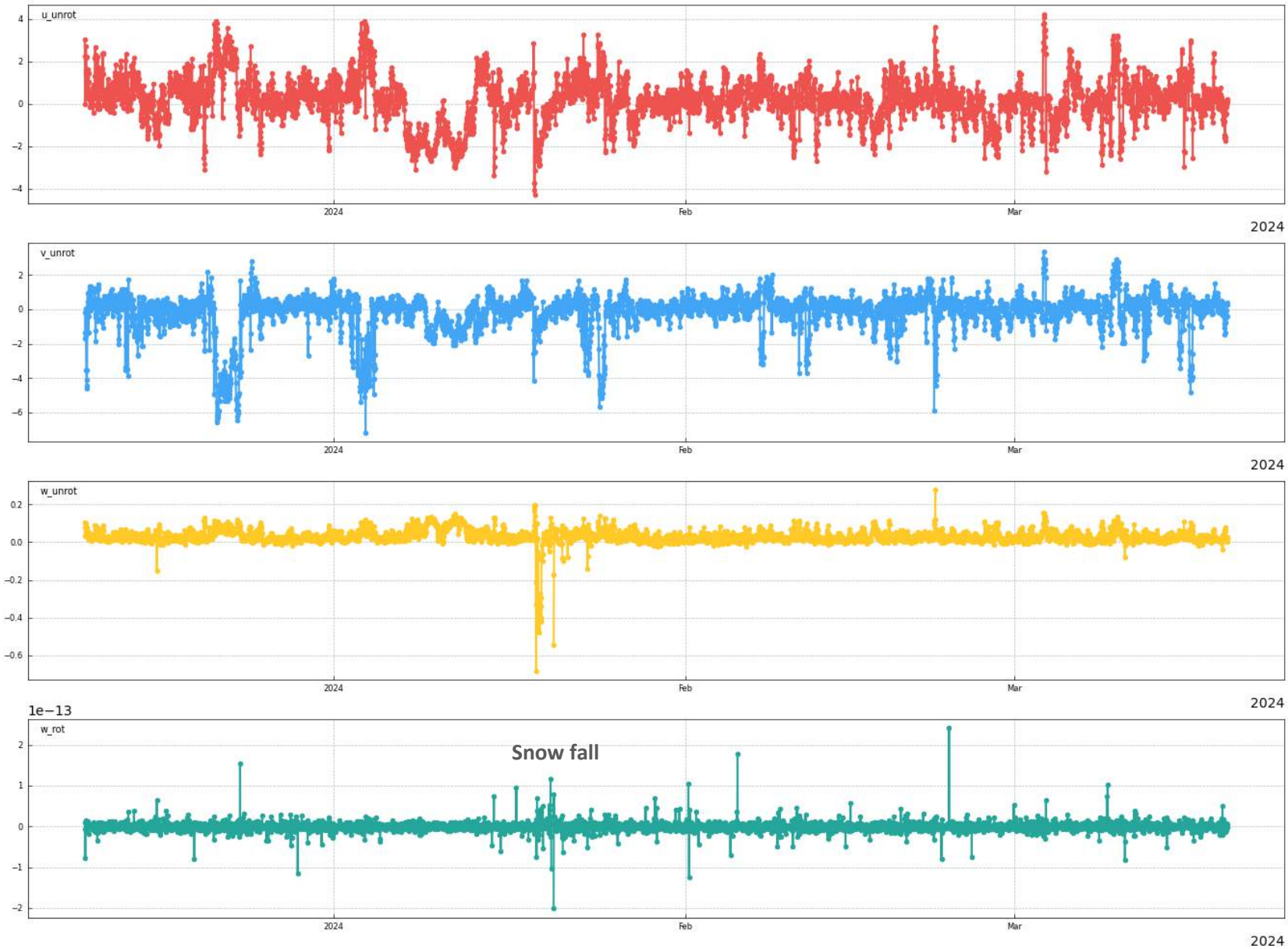
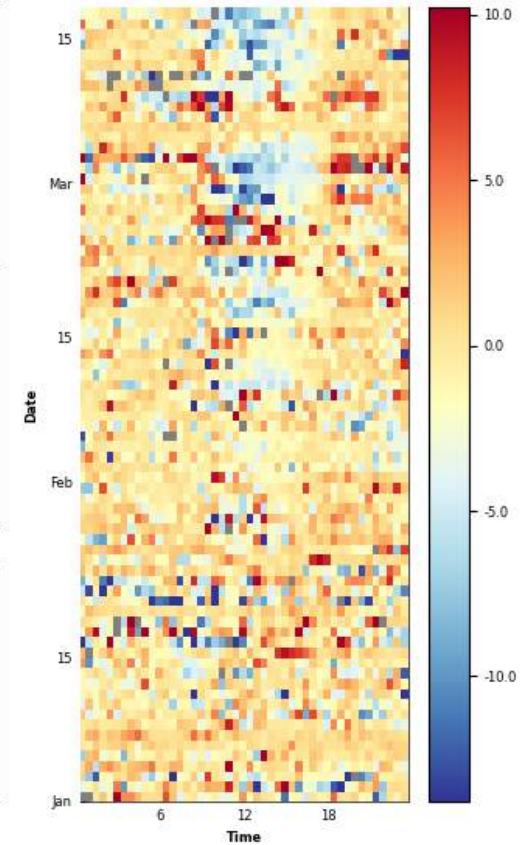
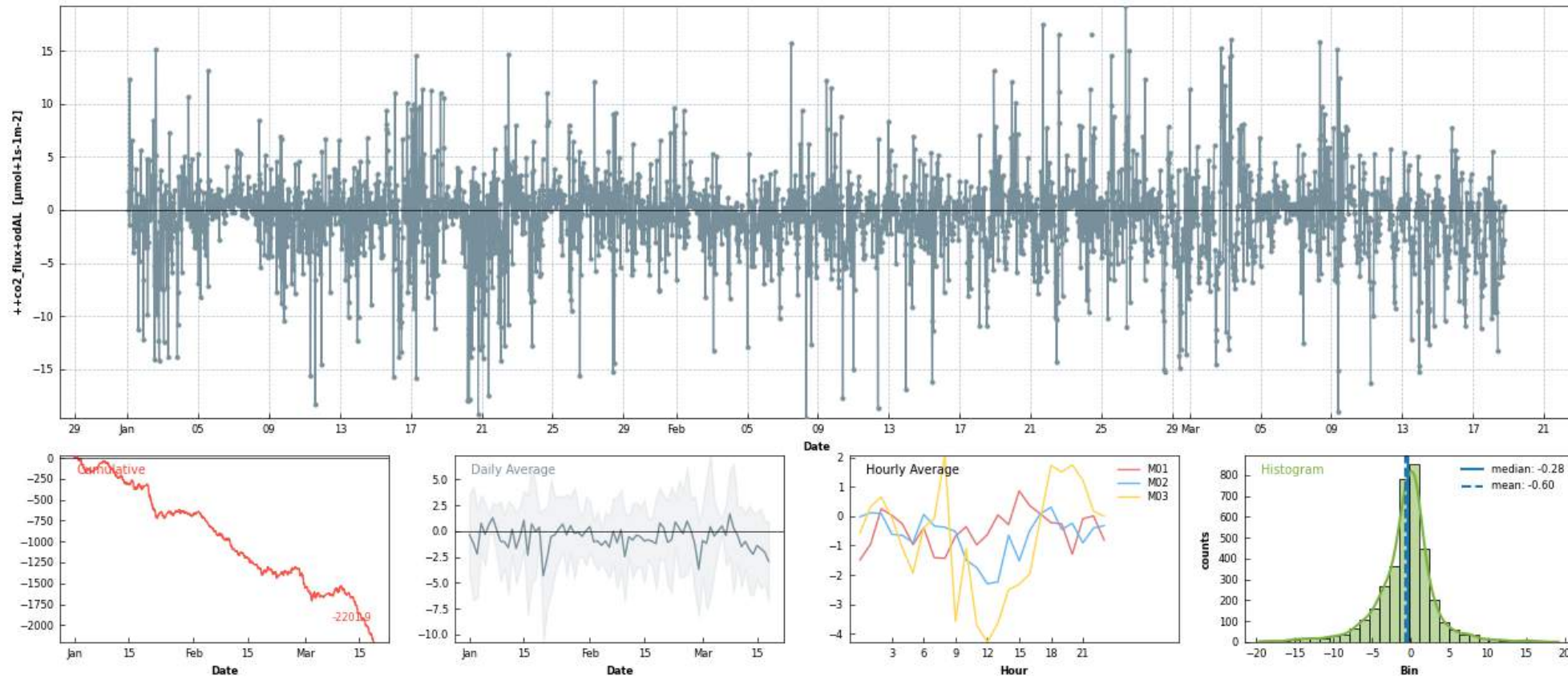
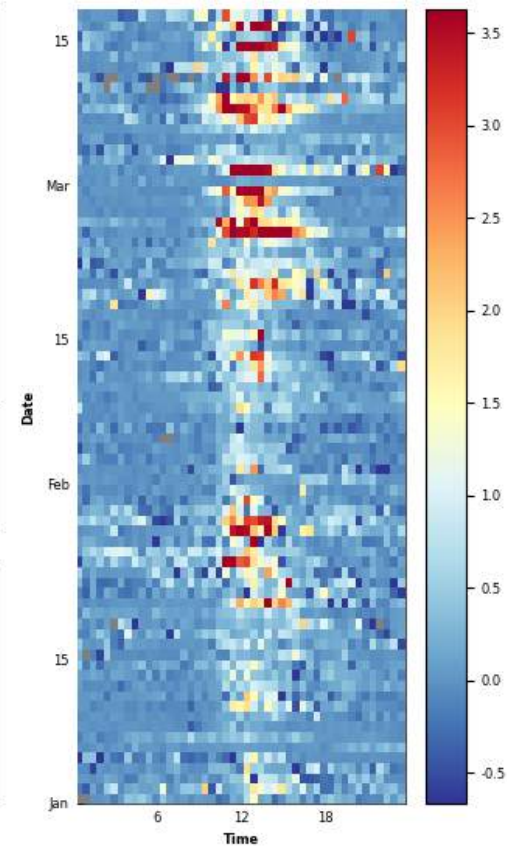
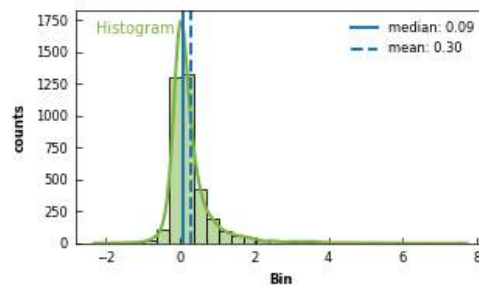
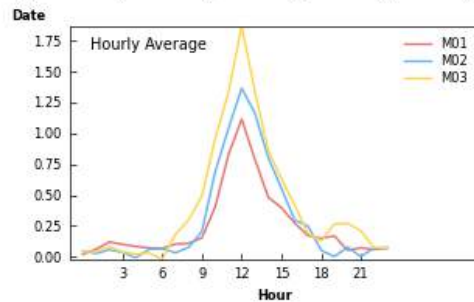
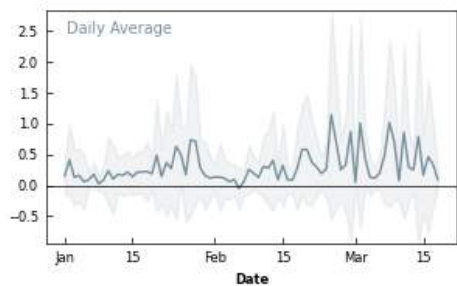
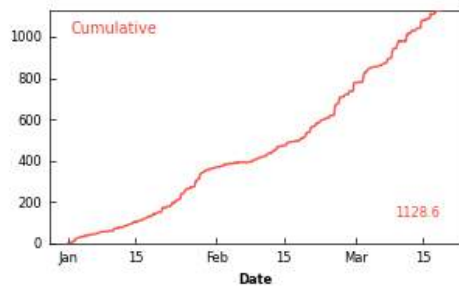
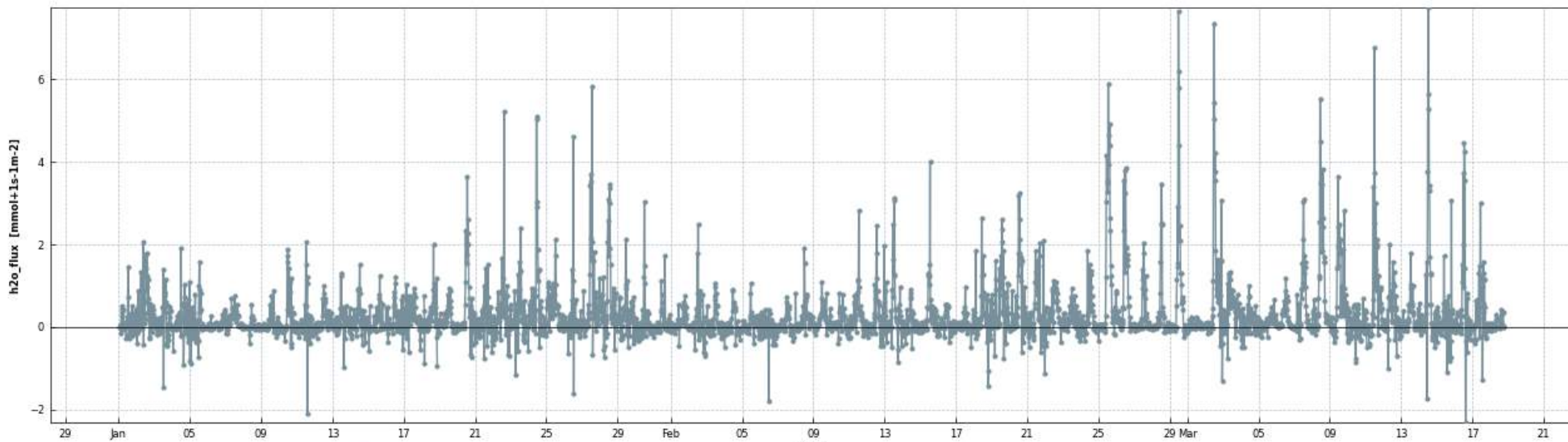


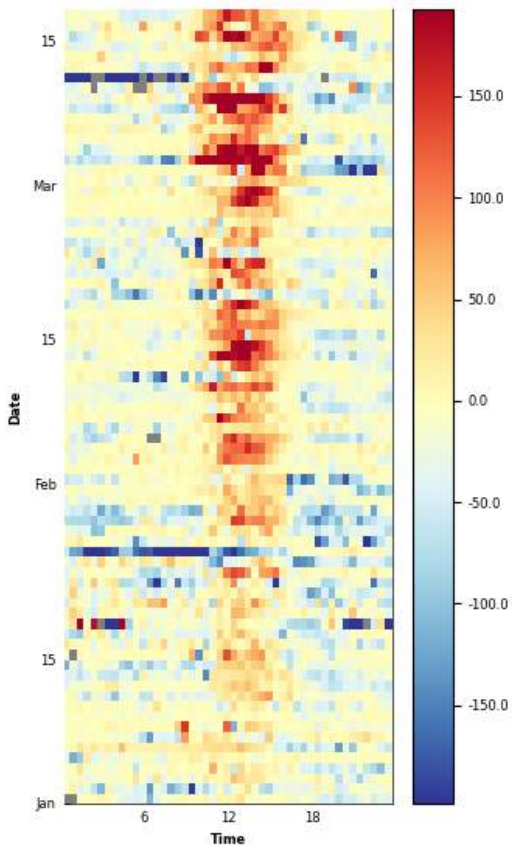
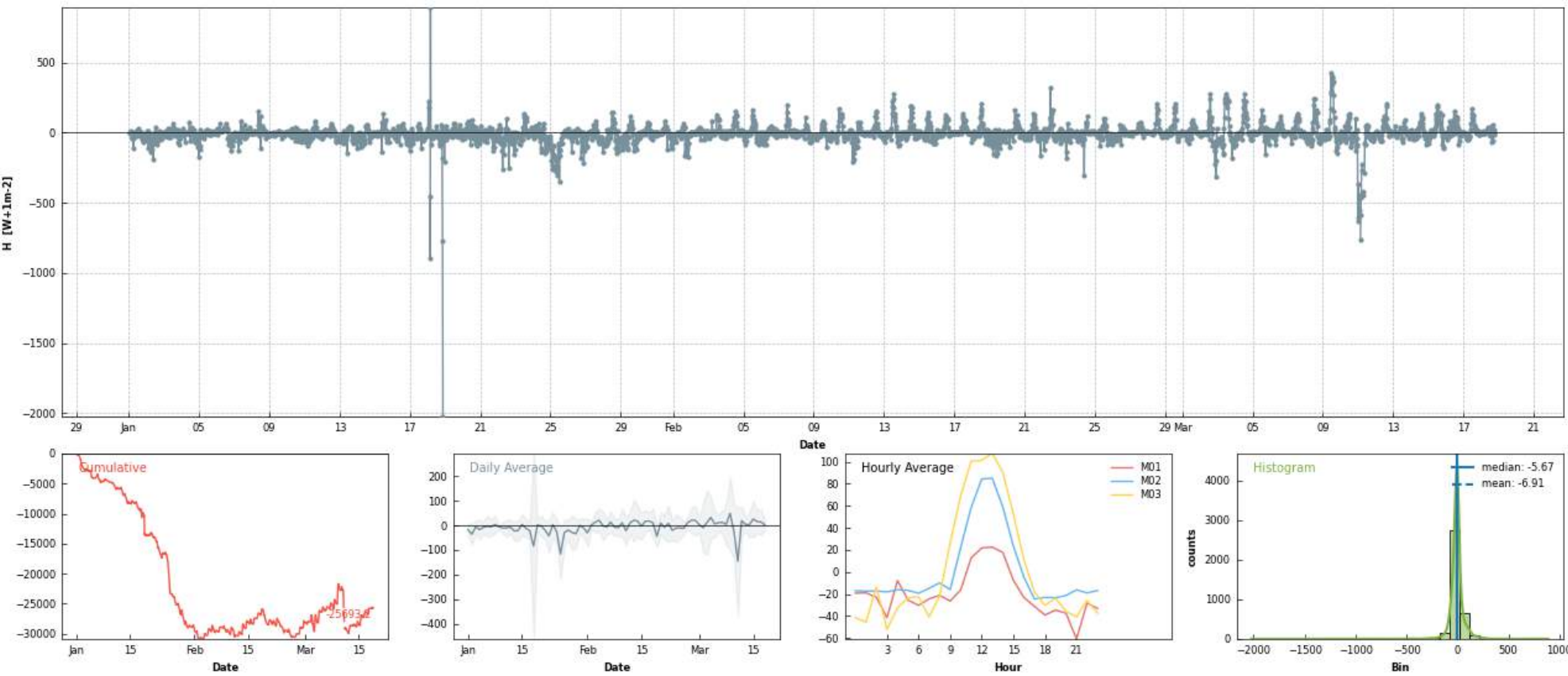


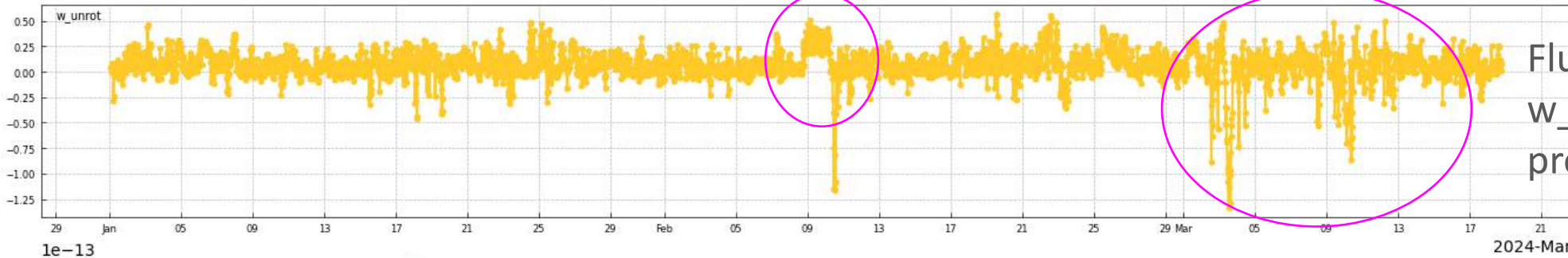
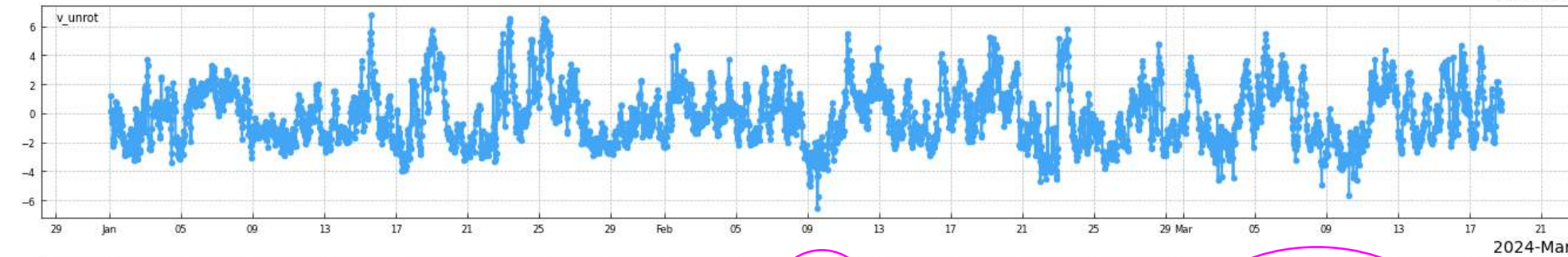
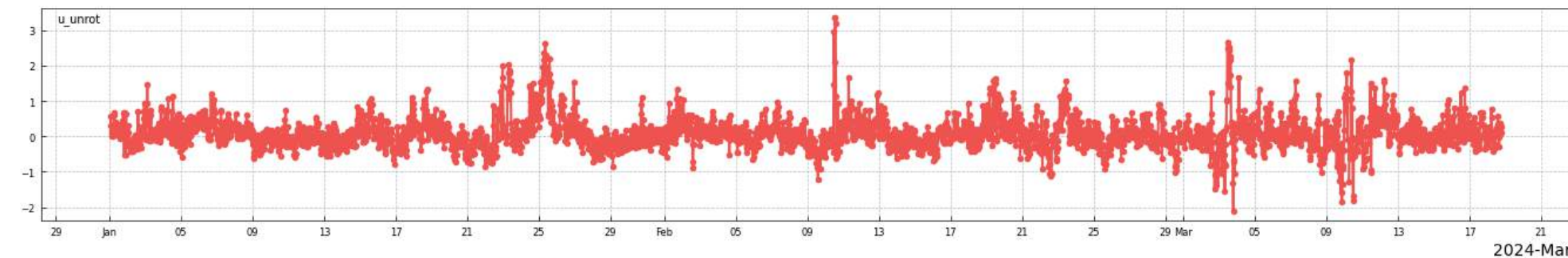
Photo: Lukas Hörtnagl

- Seems like the forest is currently a net sink? (see cumulative and daily averages)
- Could be due to rather warm winter
- Interruption in uptake beginning of March due to low temperatures?









Fluctuation in w_{unrot} might be problematic

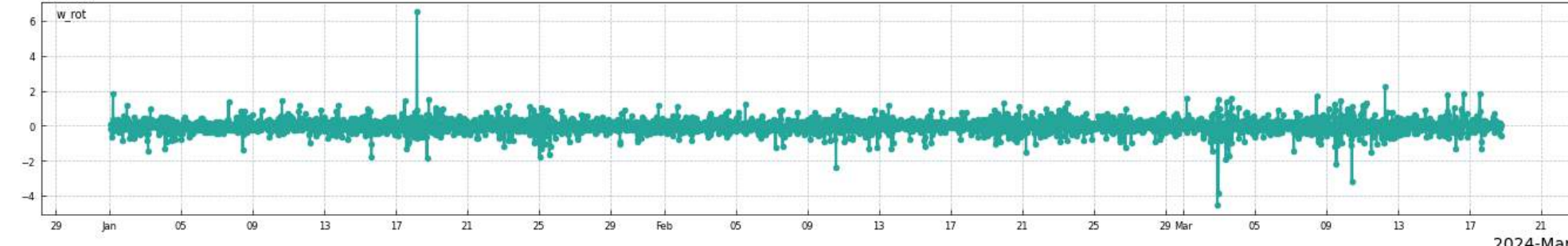
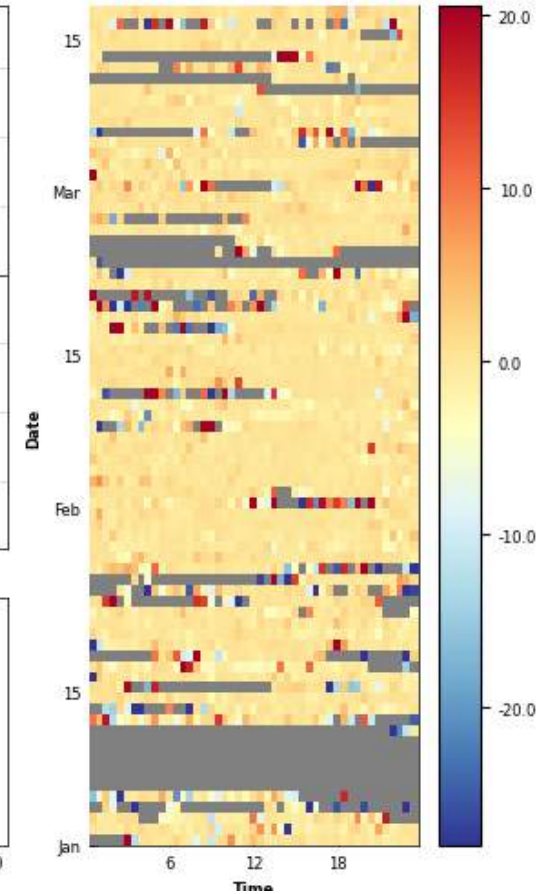
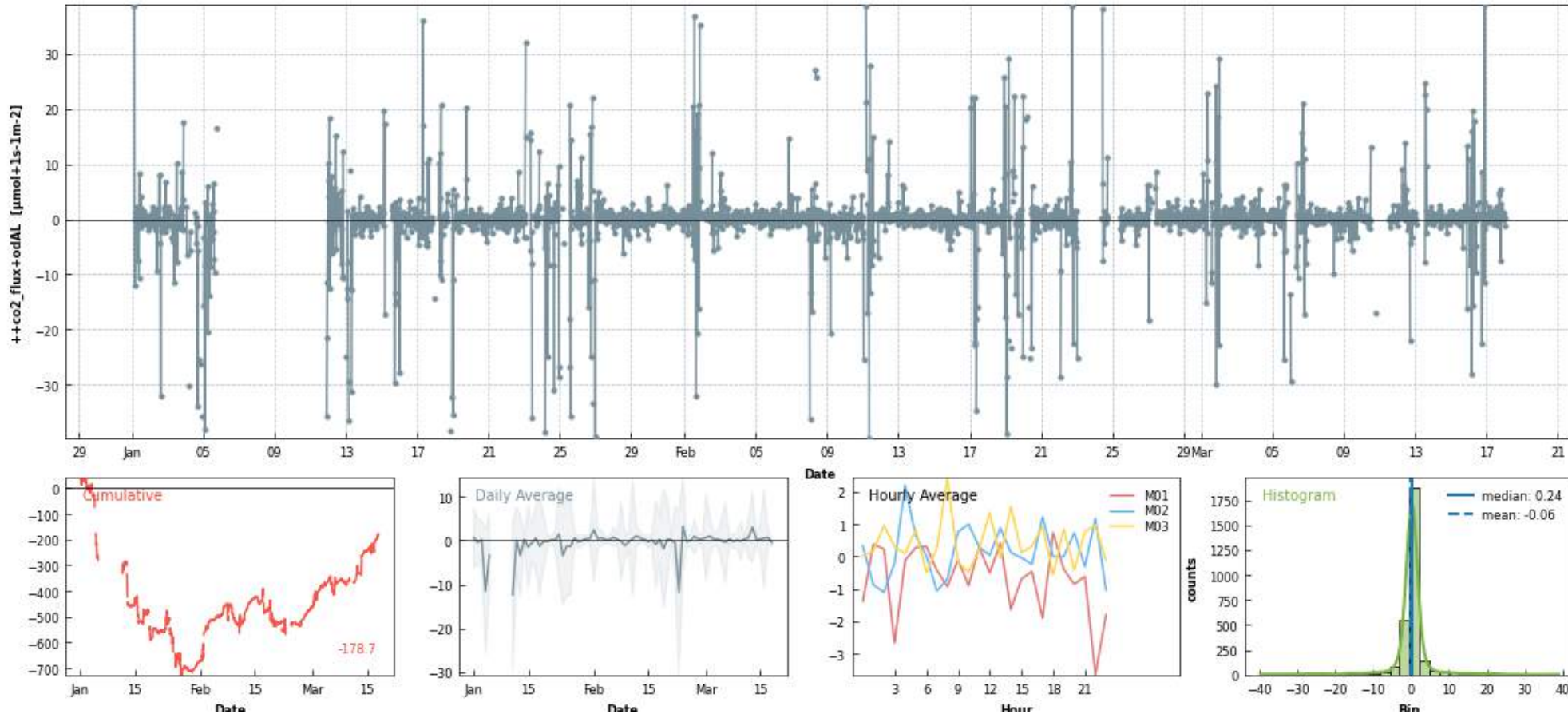
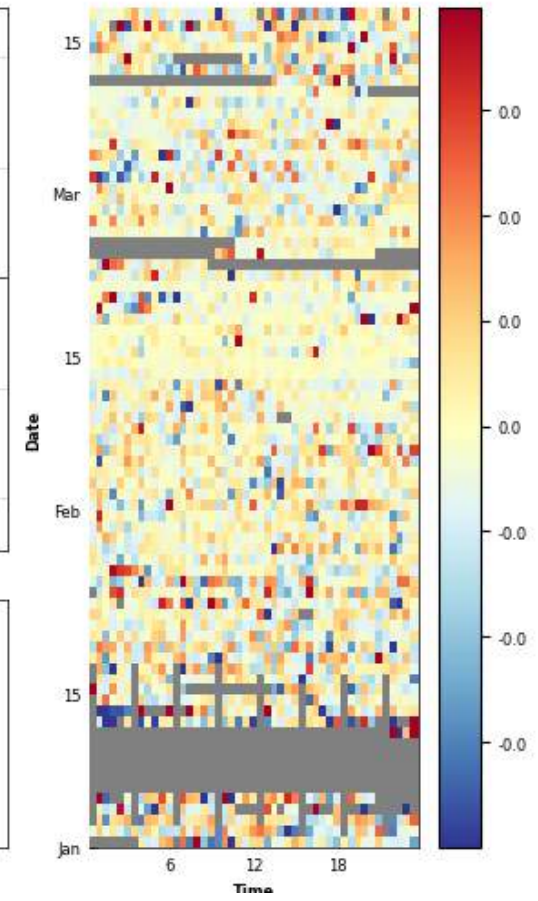
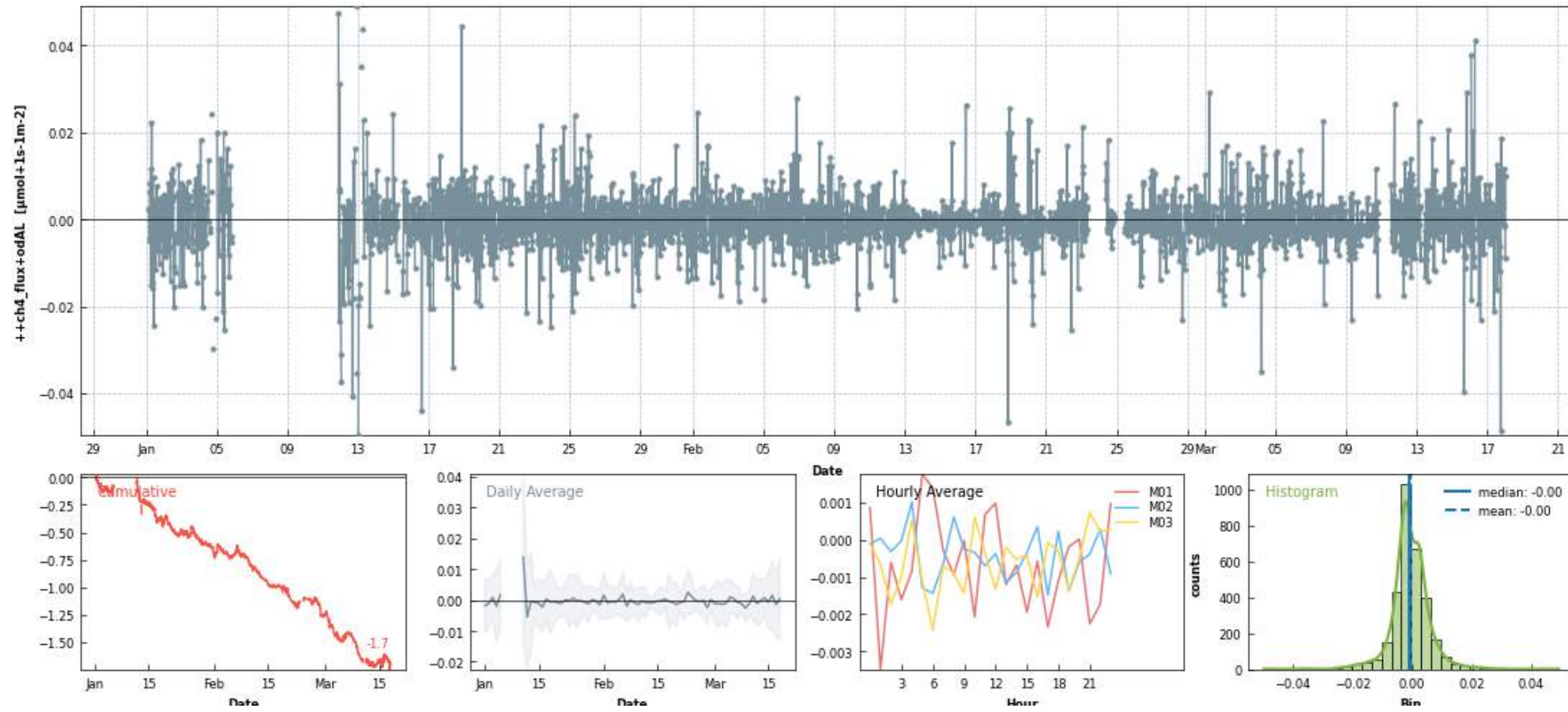
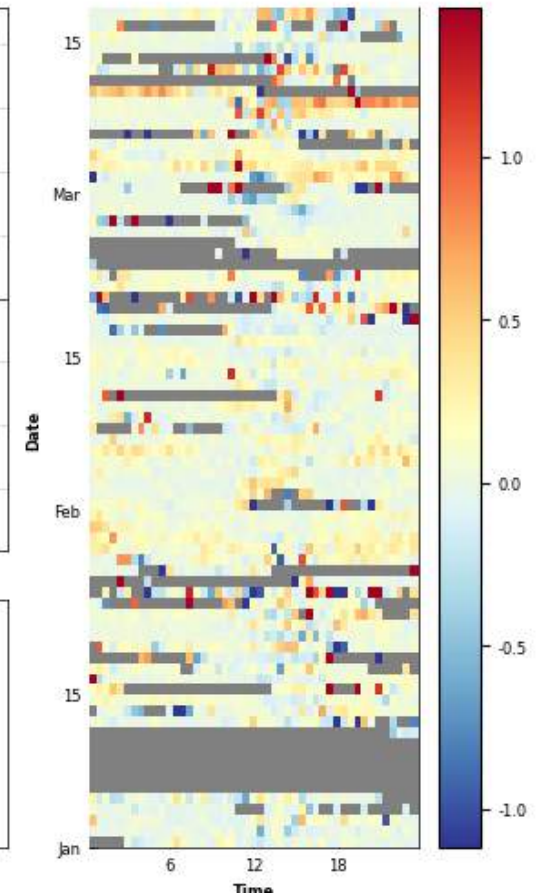
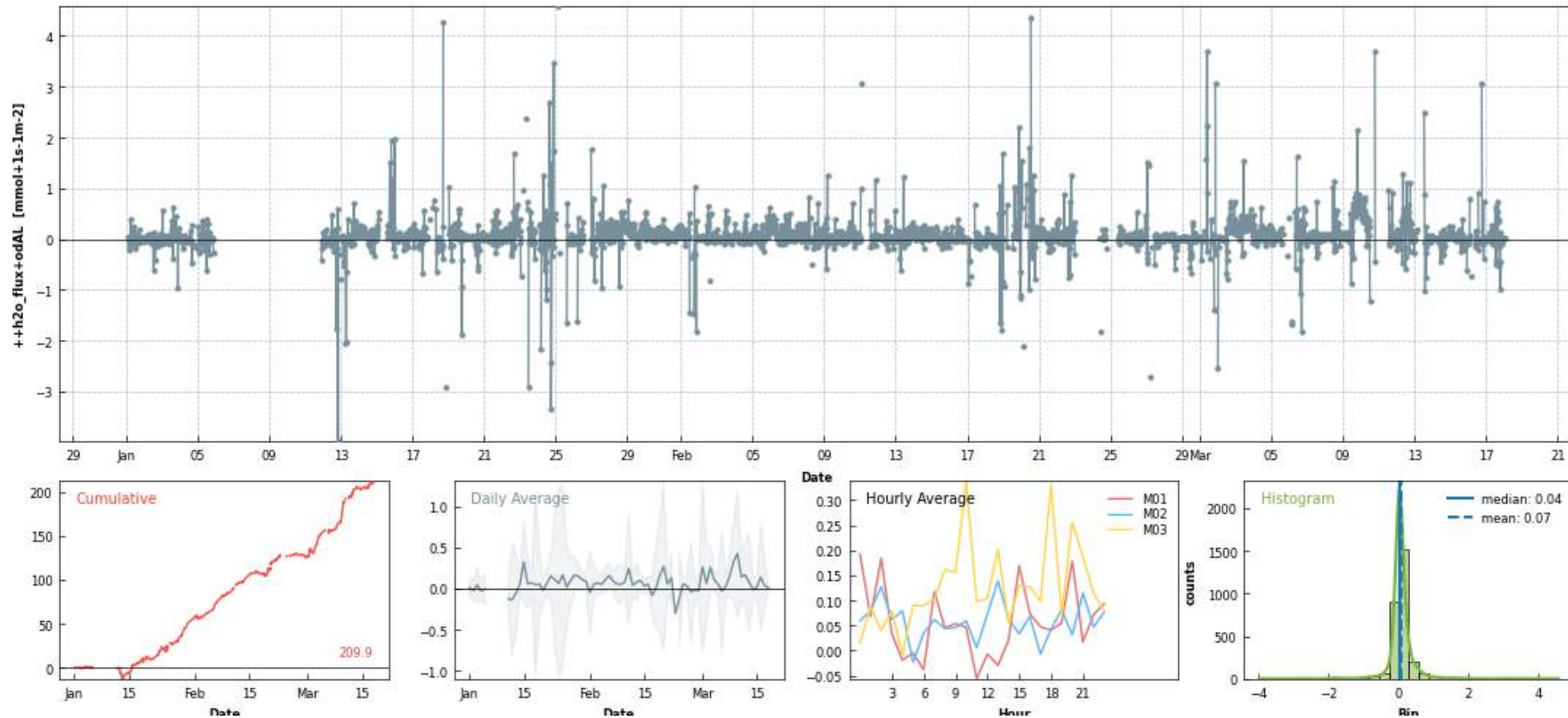


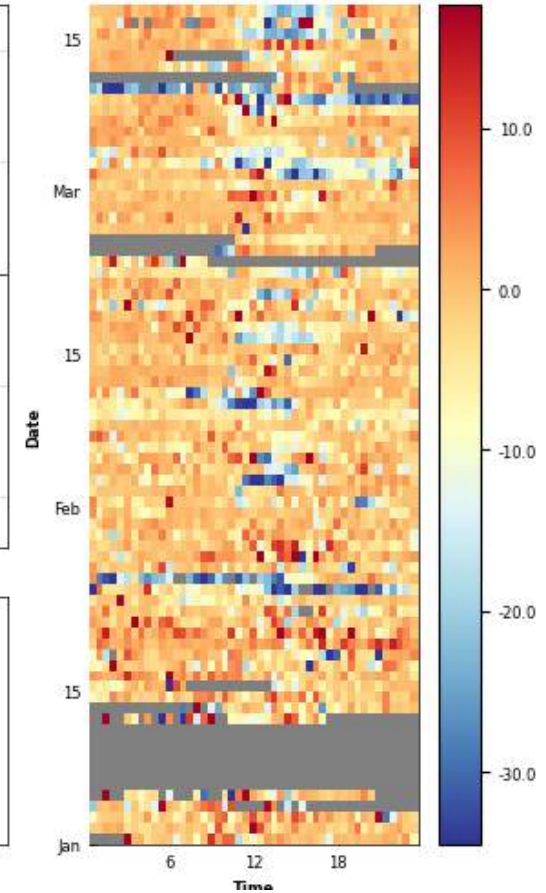
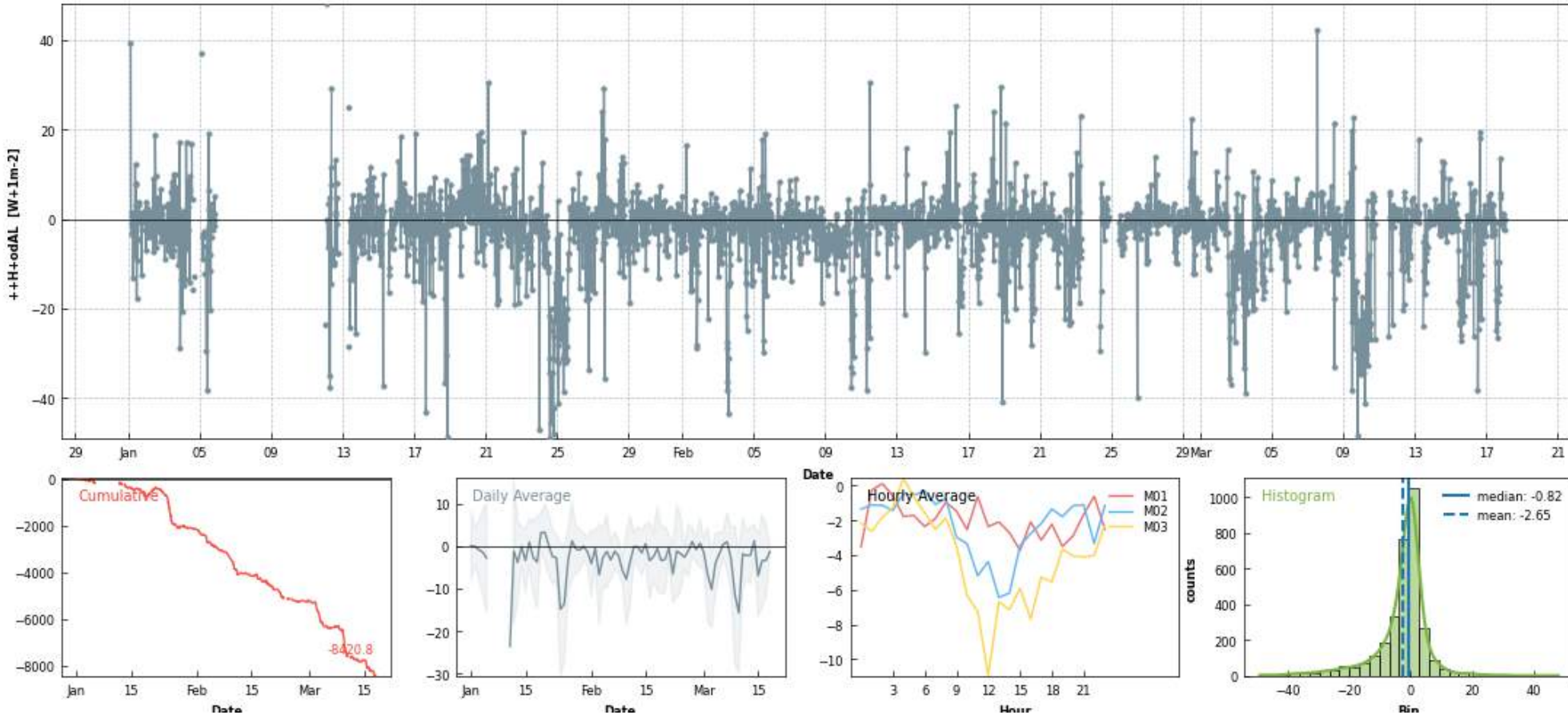


Photo: Luana Krebs









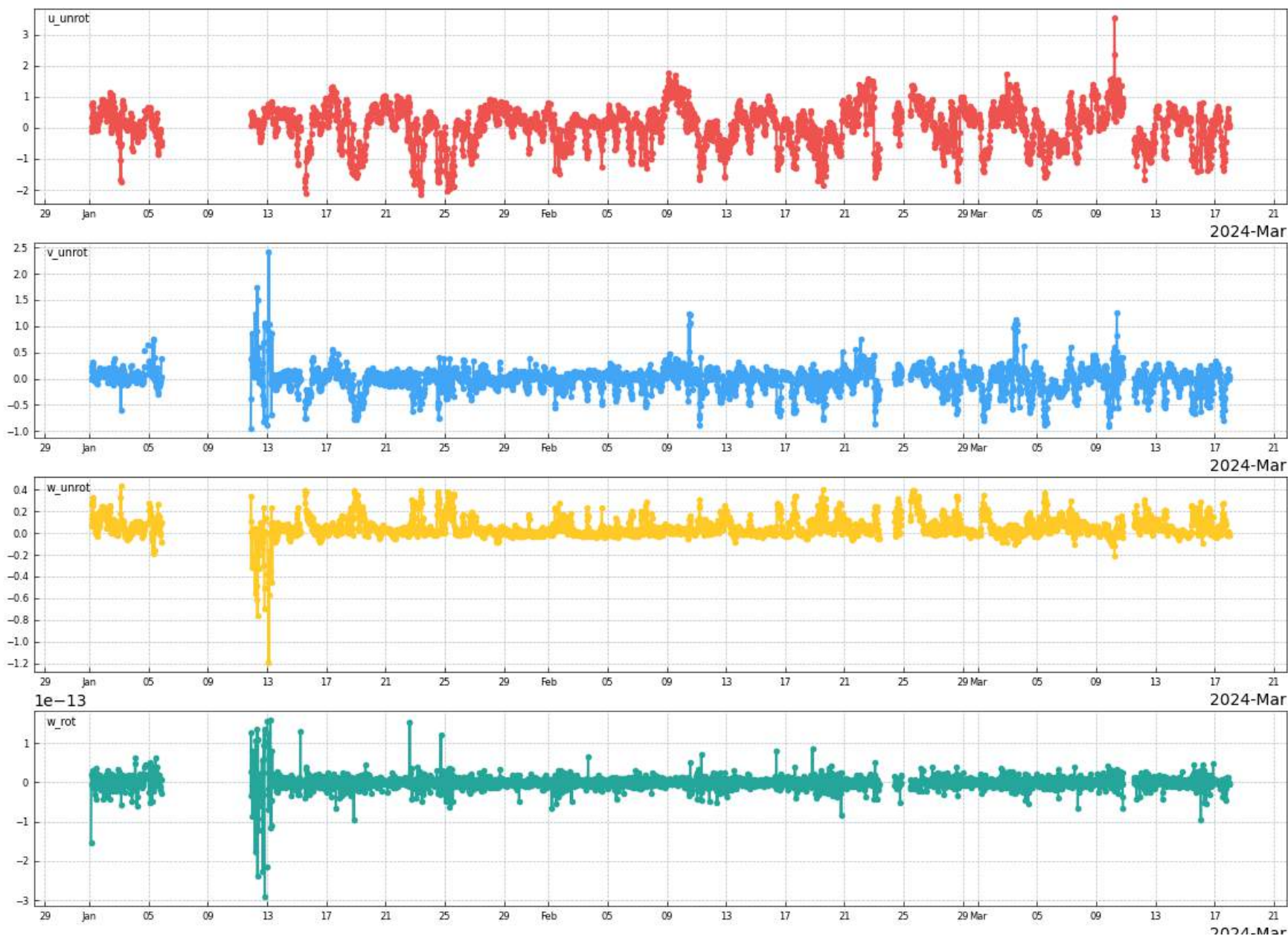
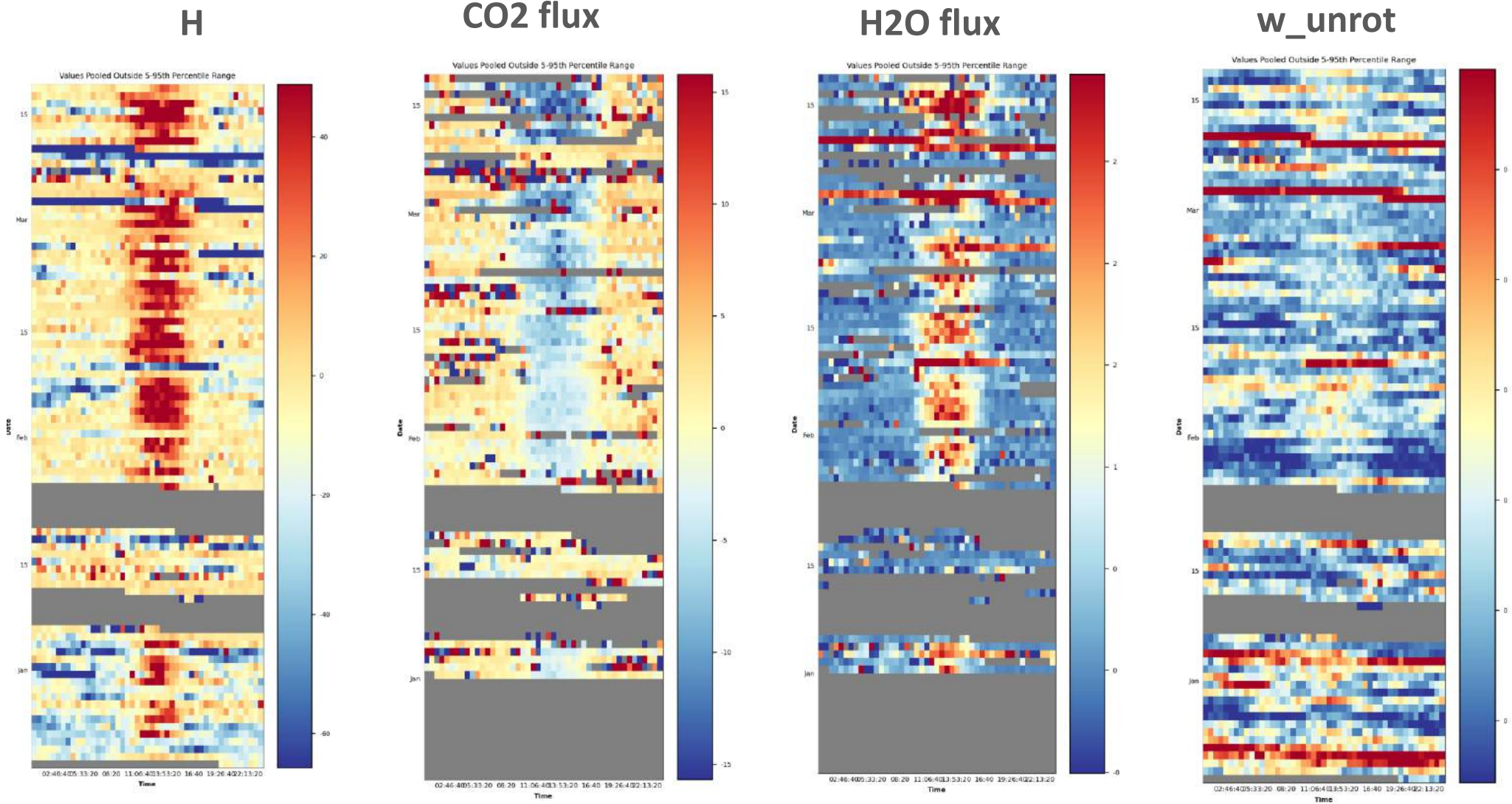




Photo: Lukas Hörtnagl



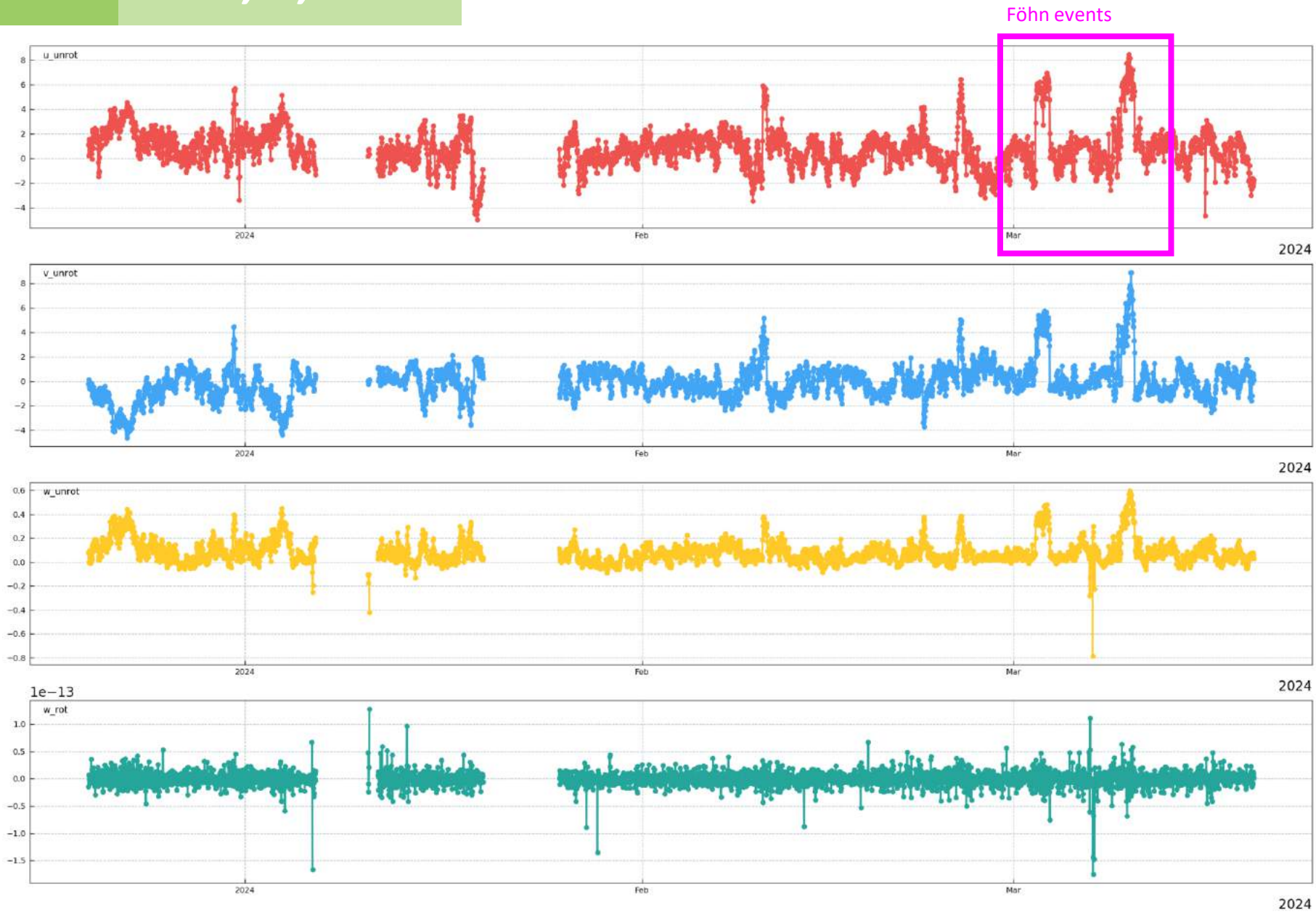
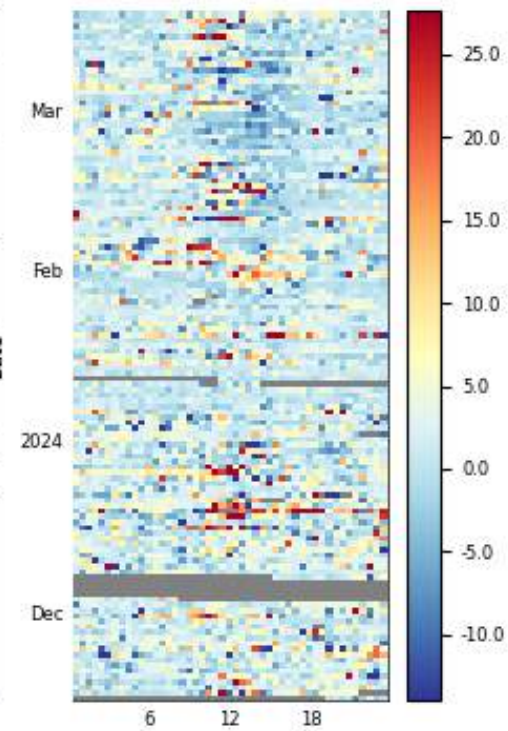
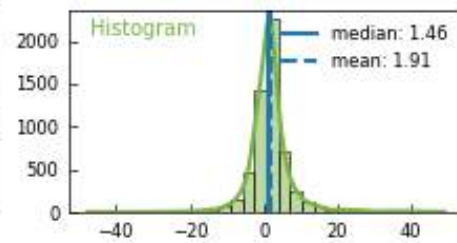
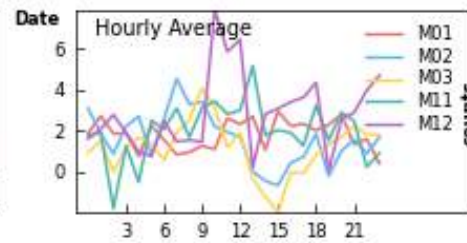
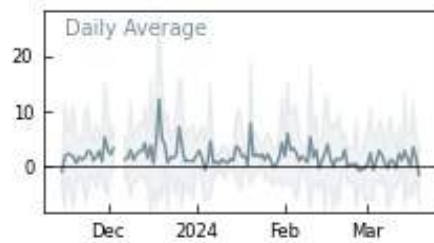
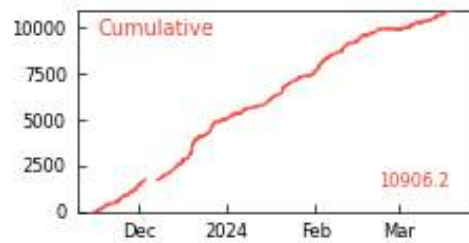
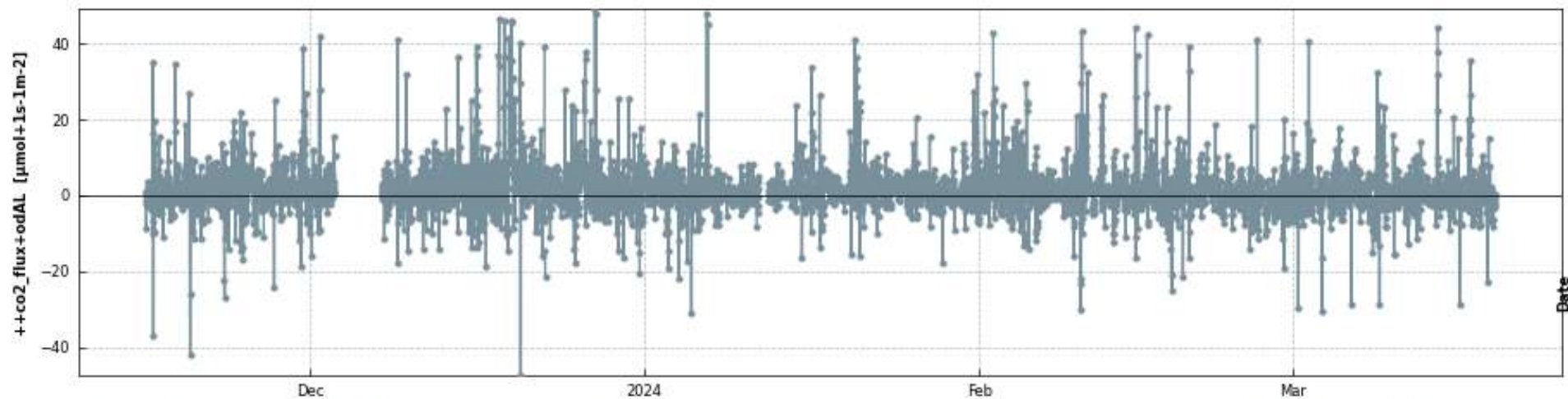
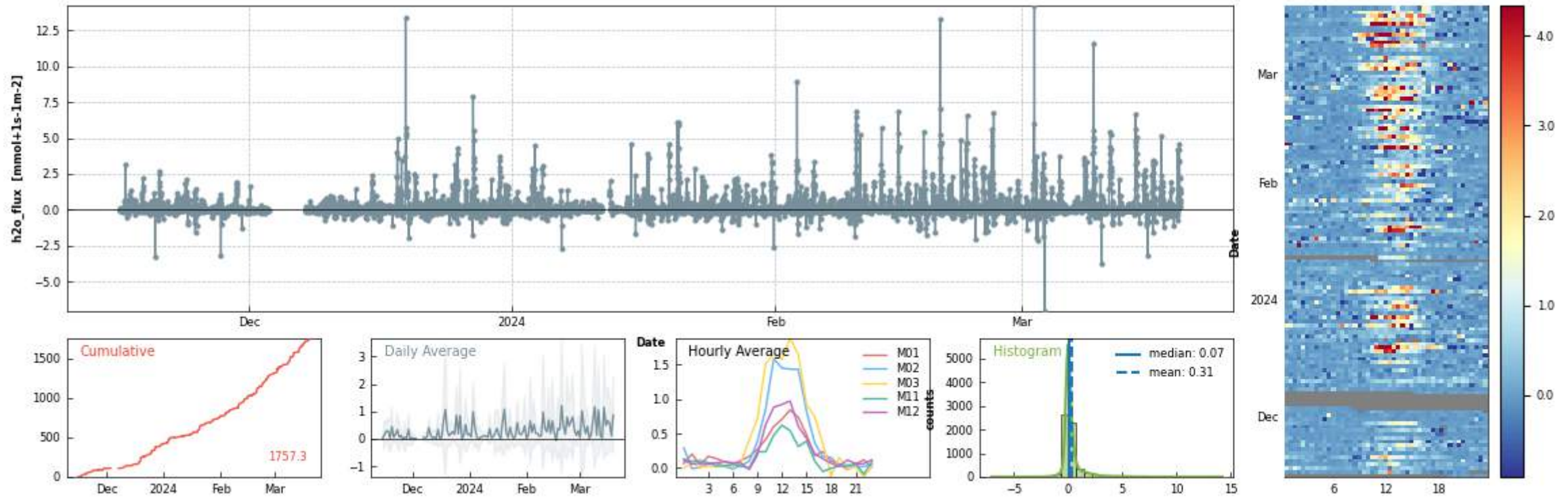
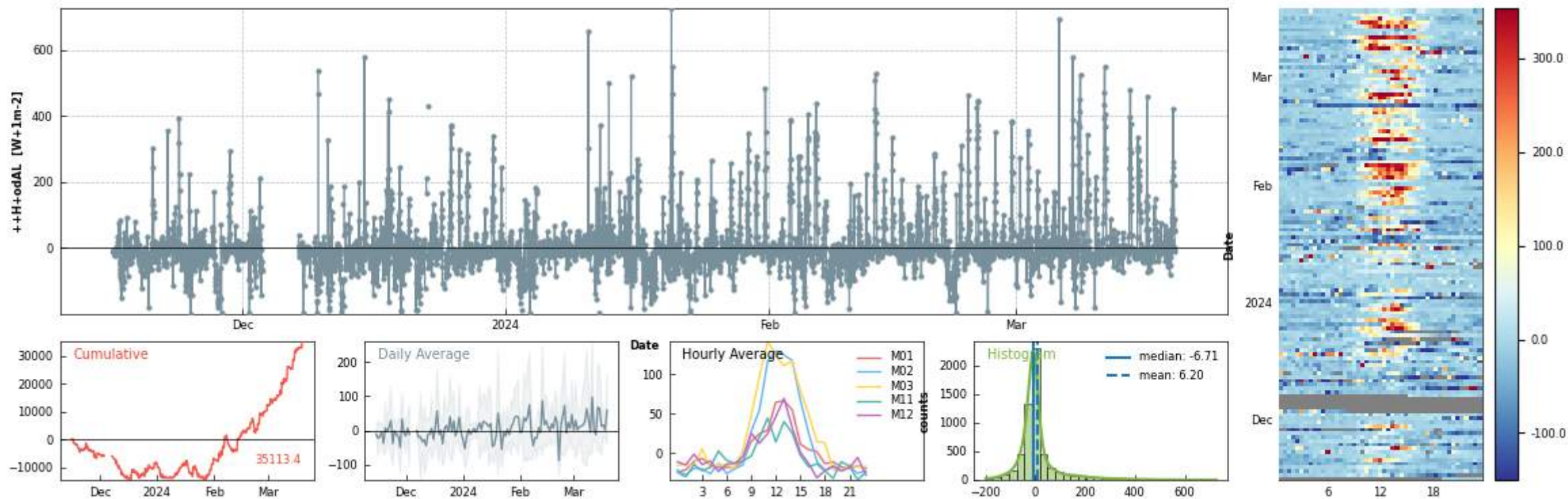




Photo: Markus Staudinger







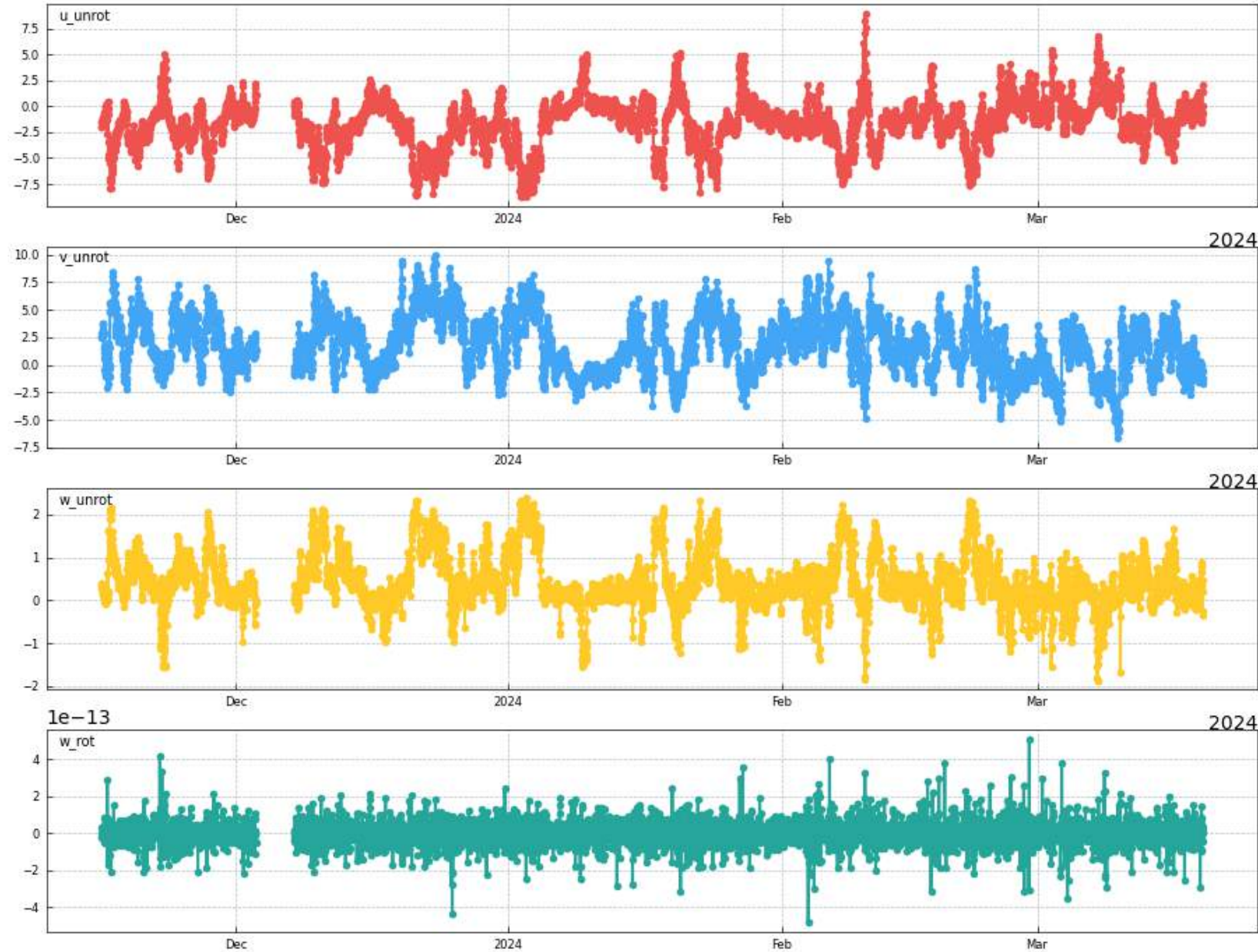
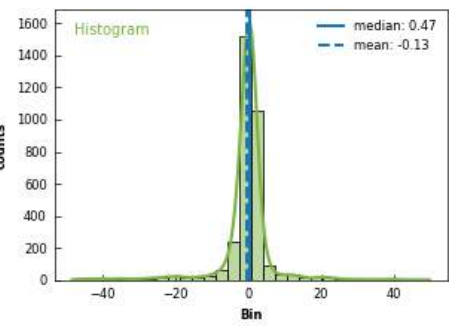
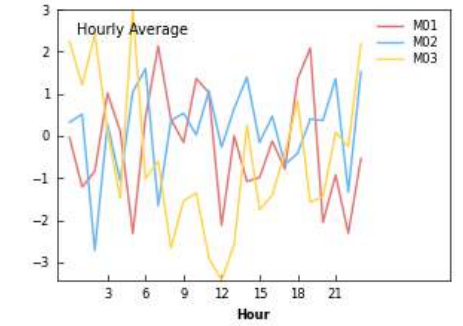
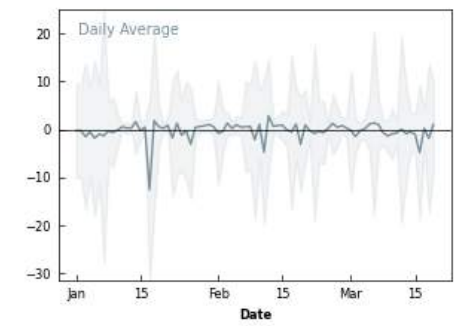
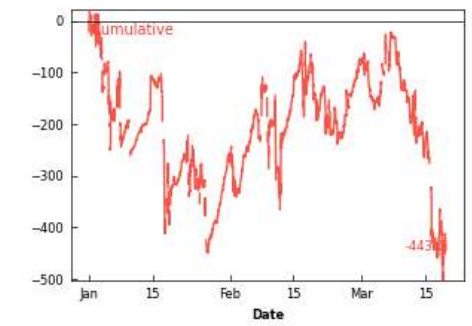
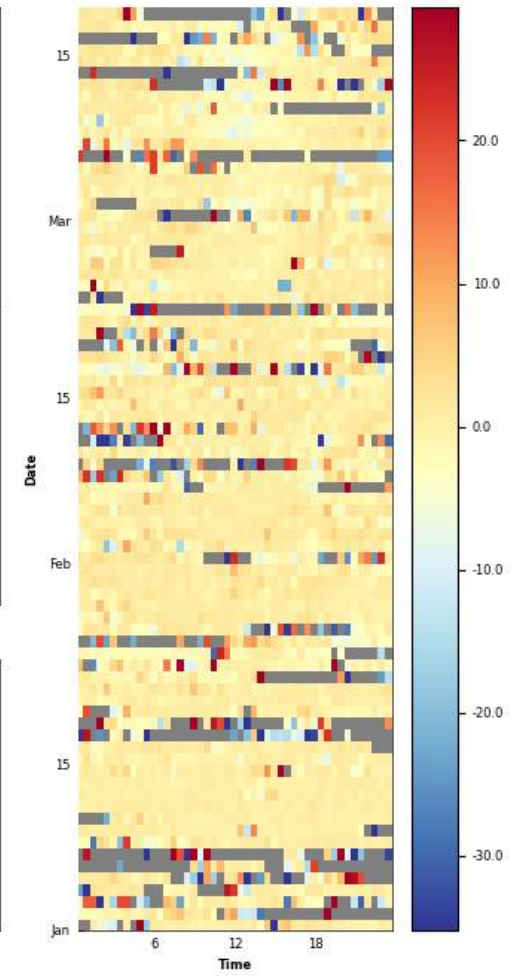
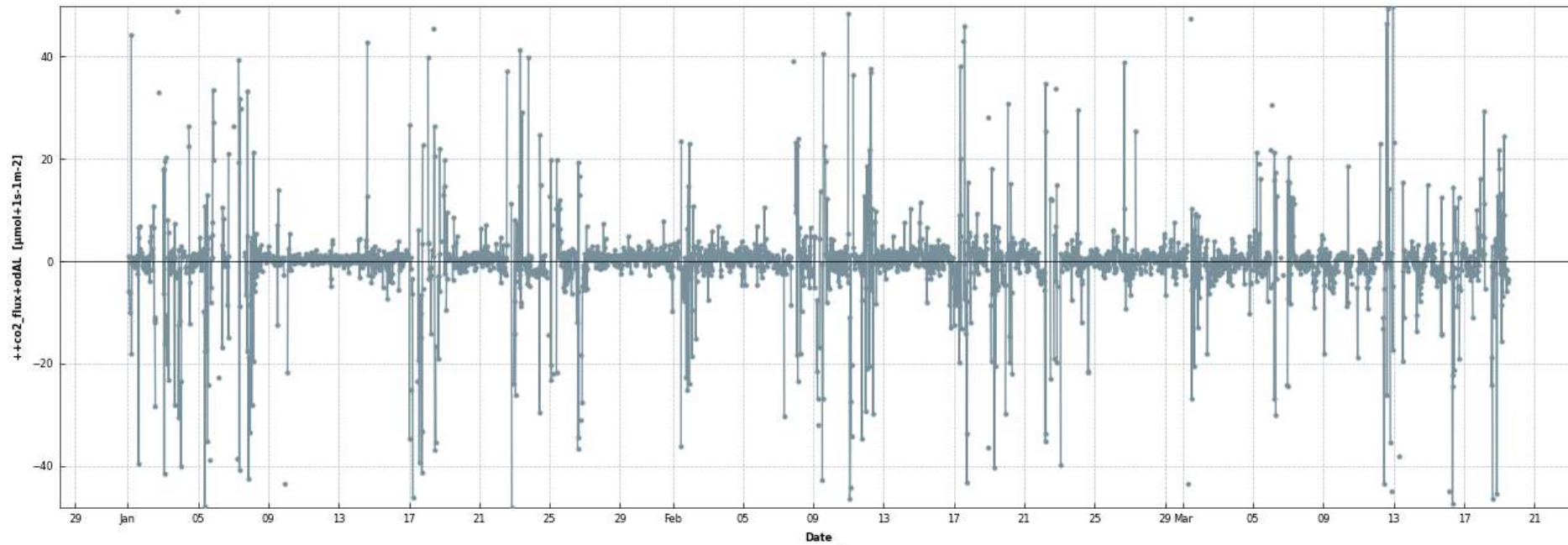
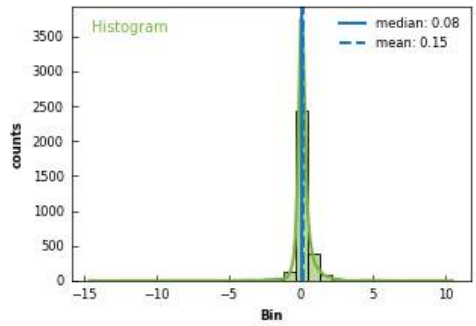
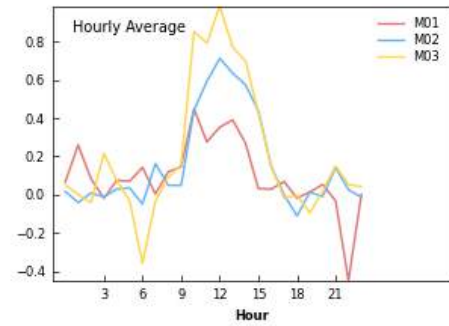
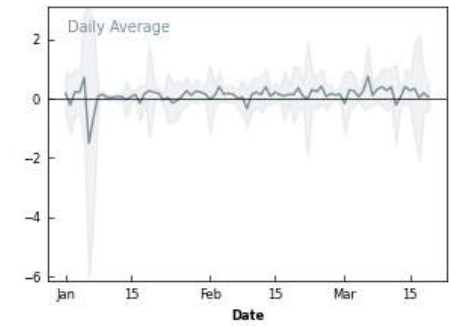
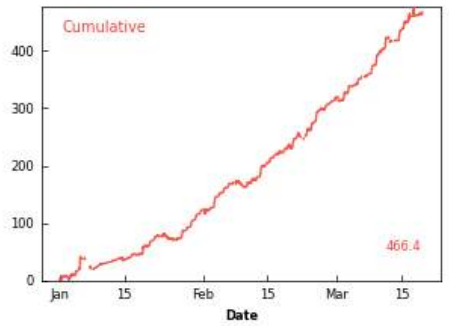
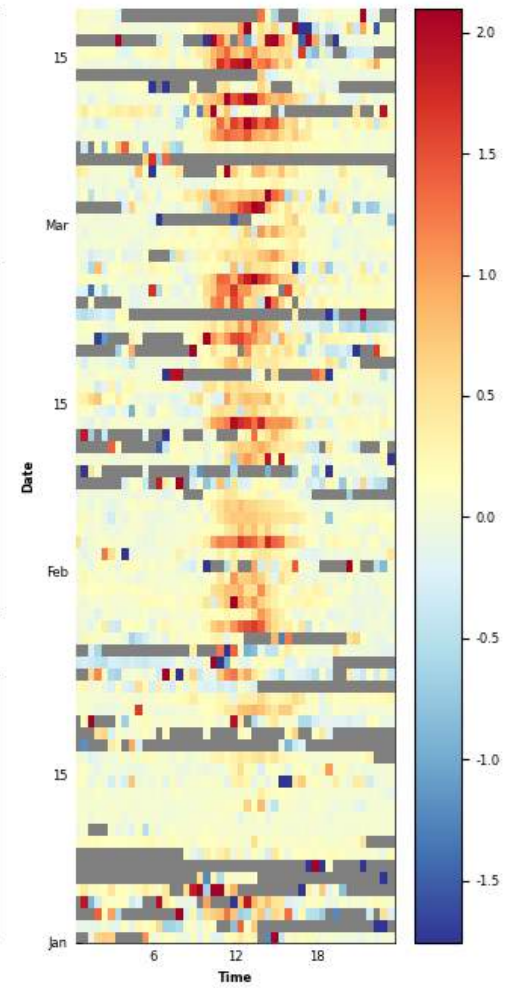
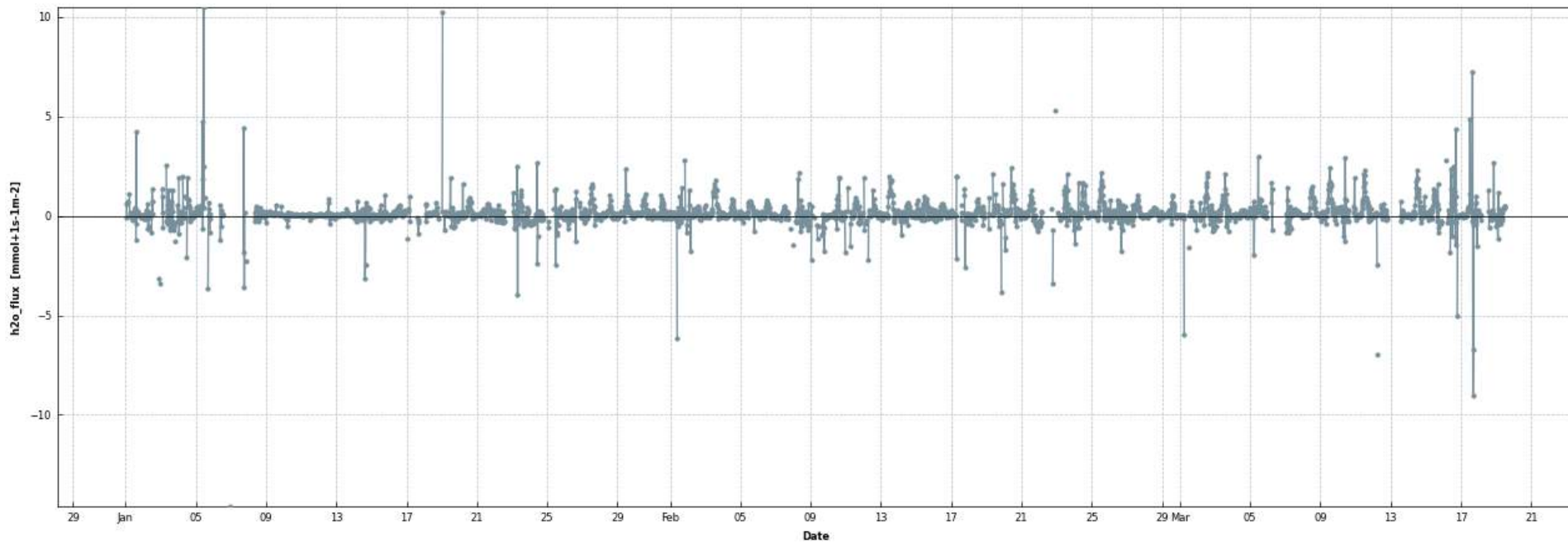
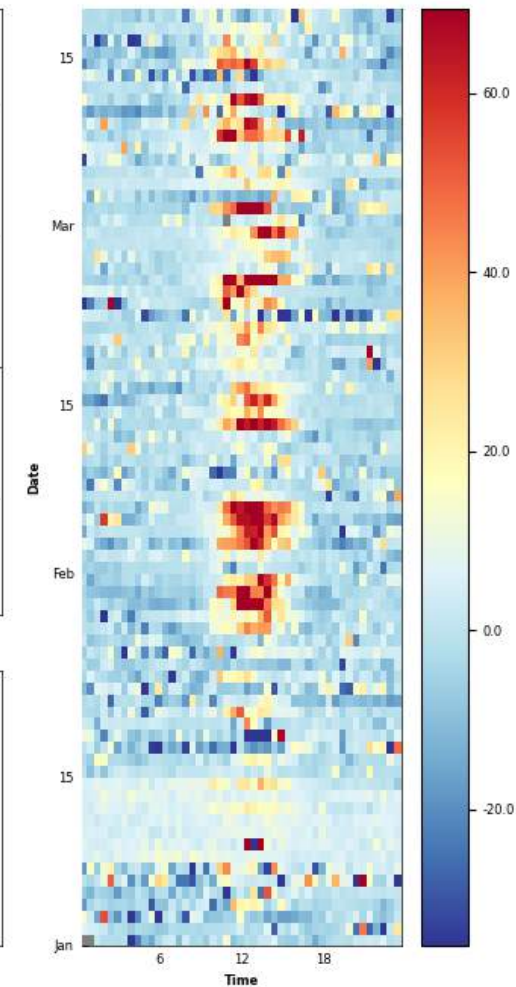
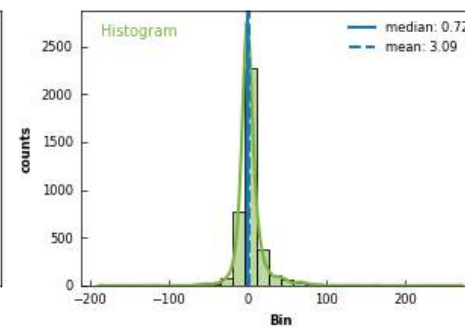
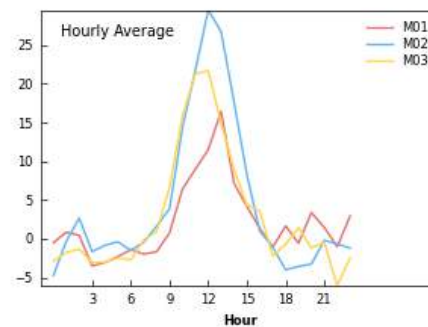
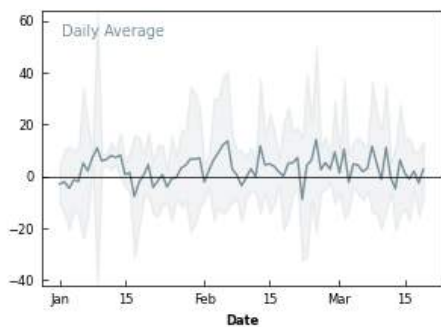
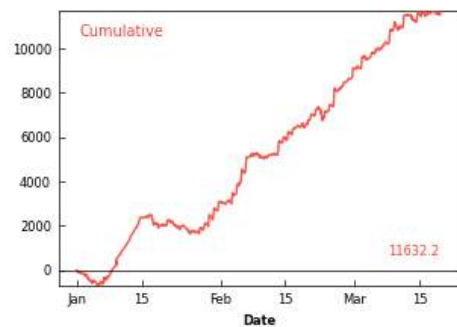
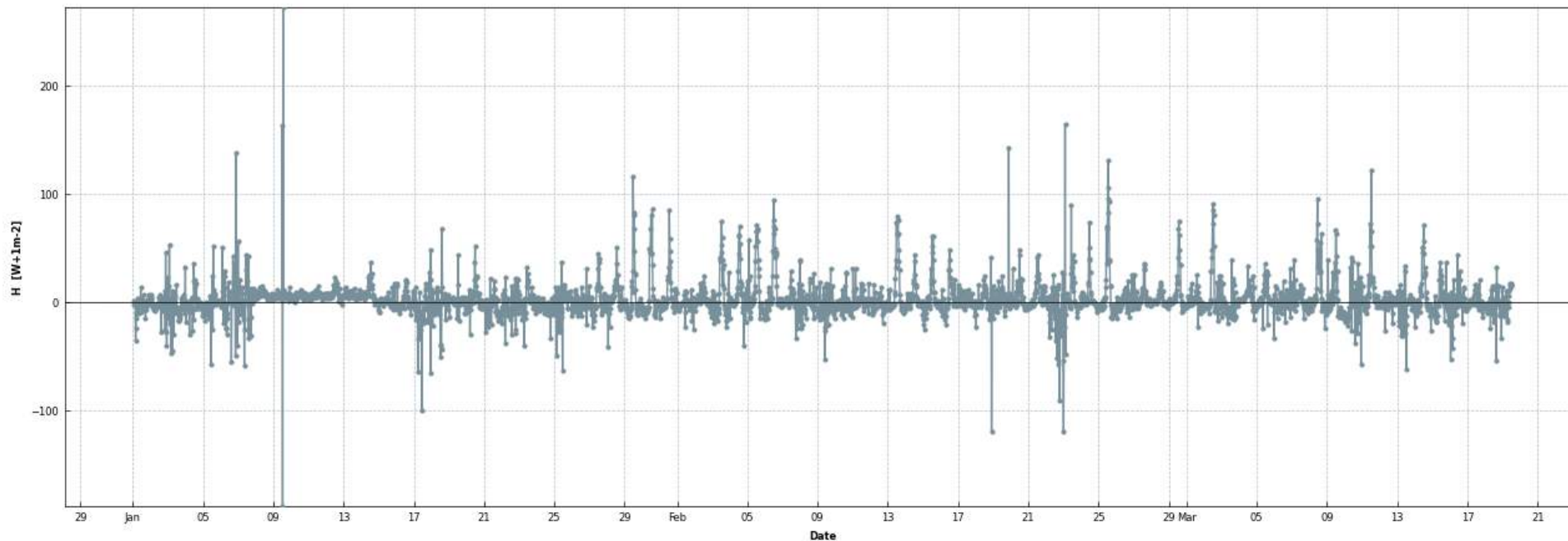




Photo: ETH GL Group







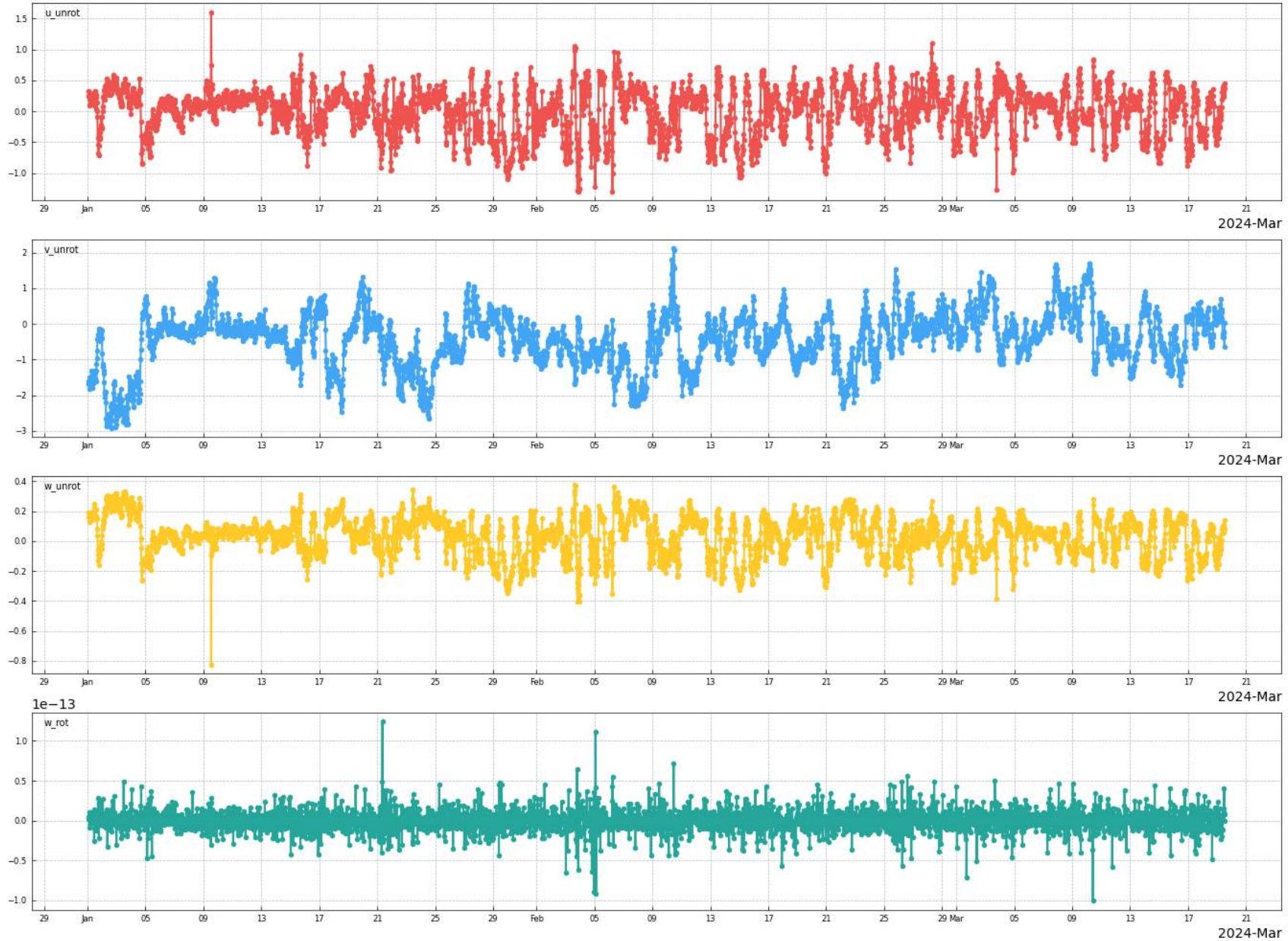
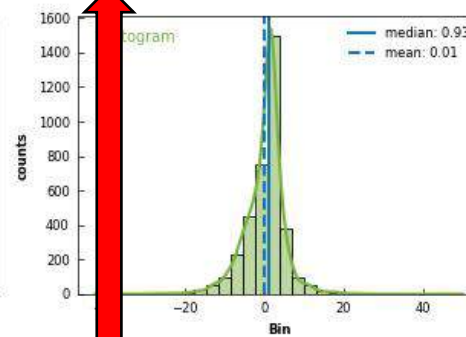
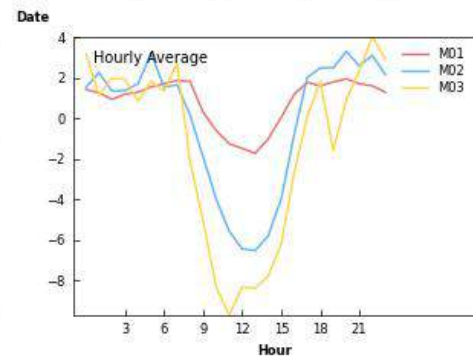
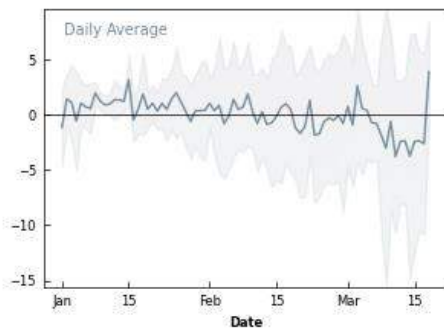
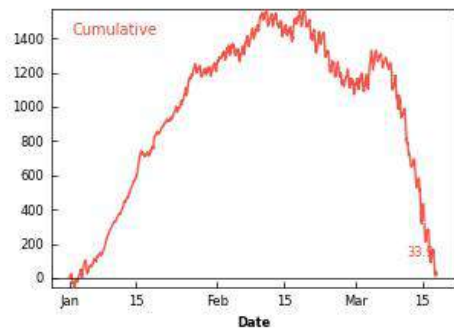
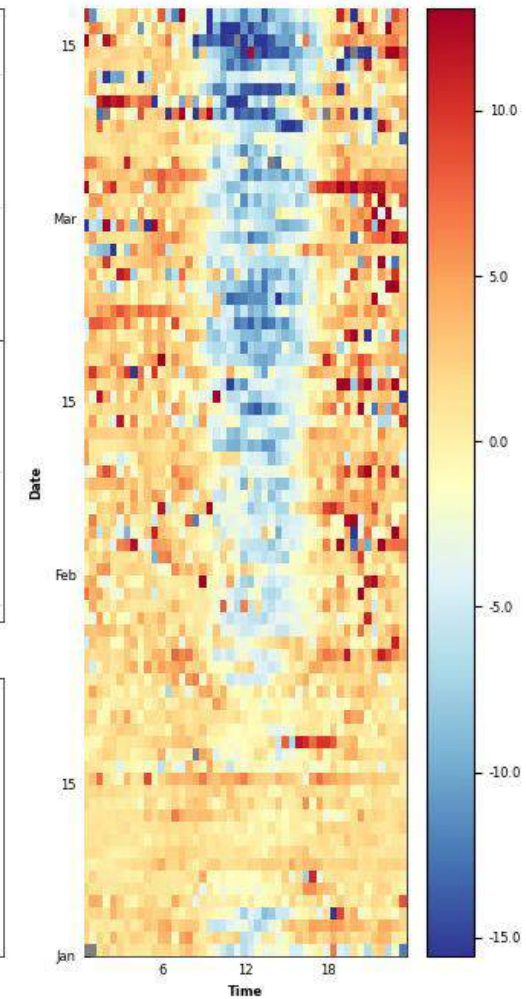
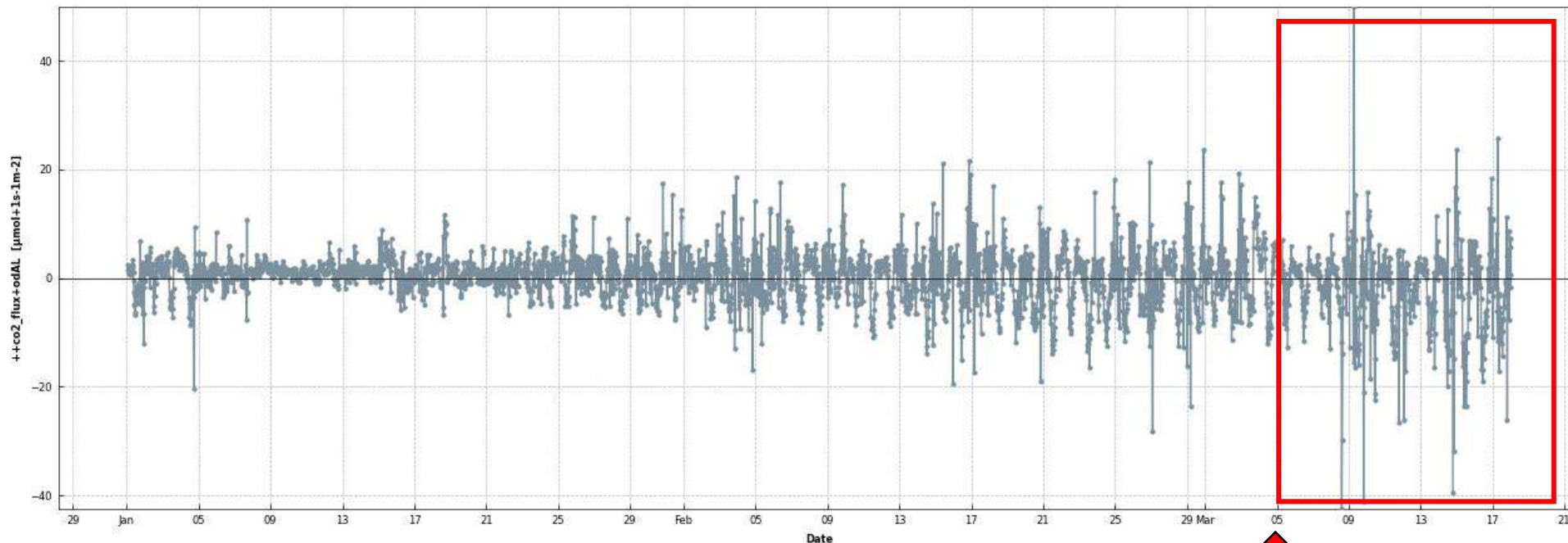




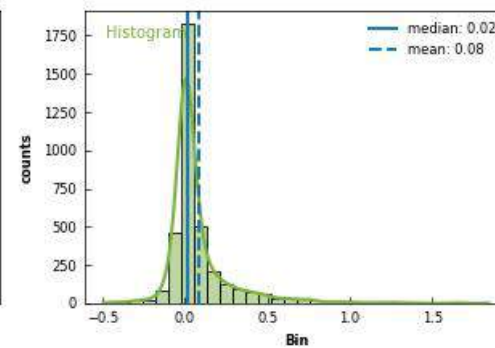
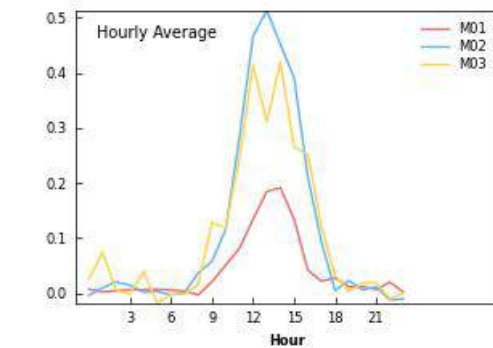
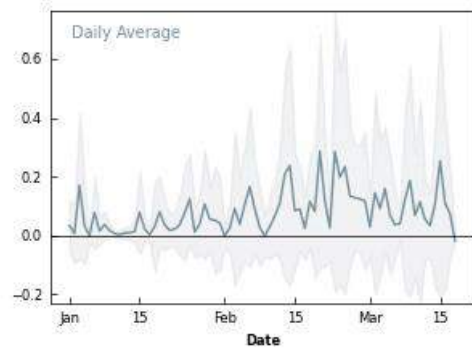
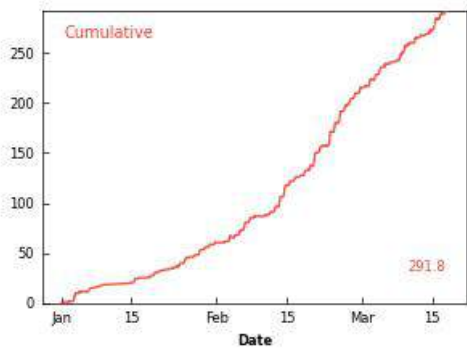
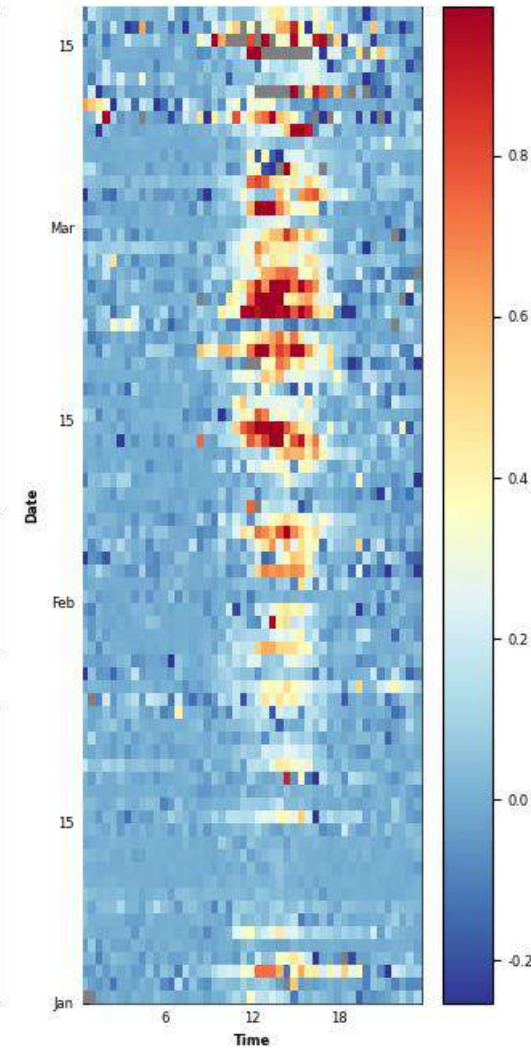
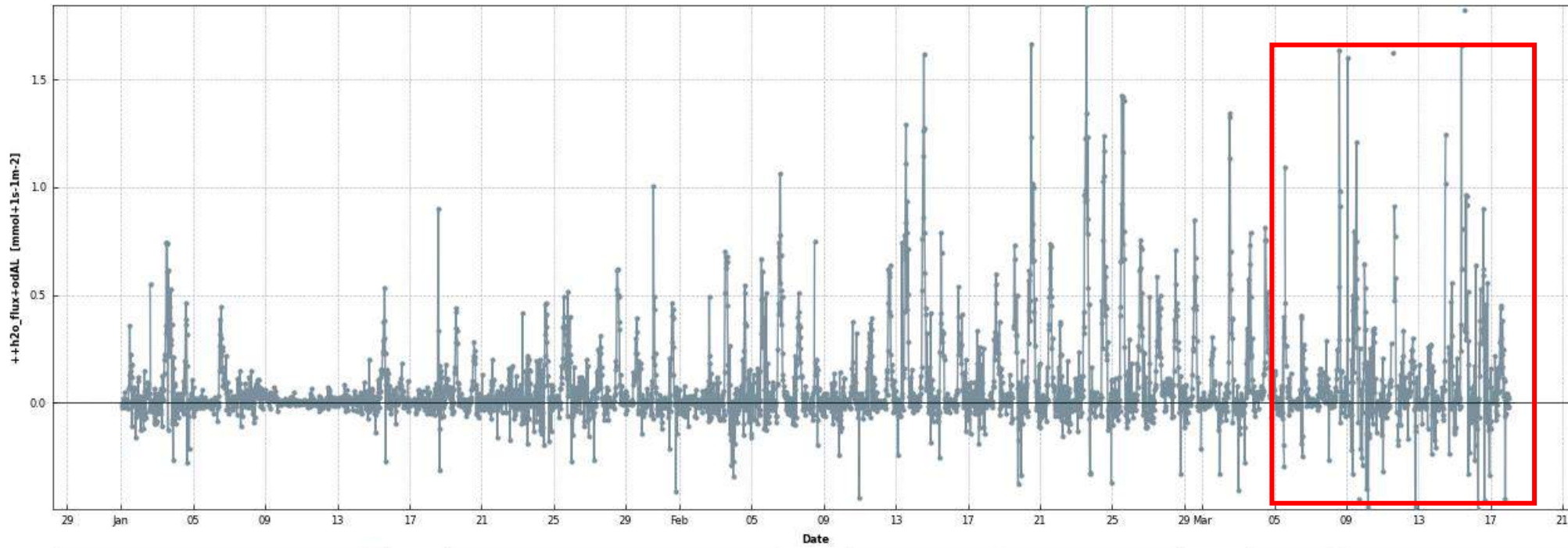
Photo: Regine Maier



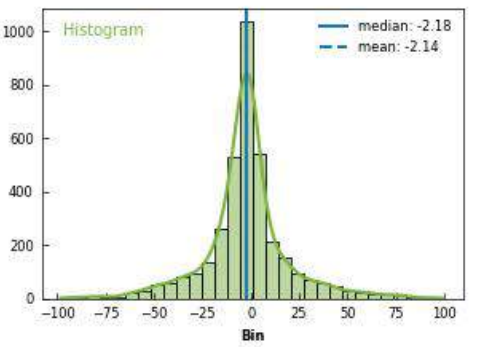
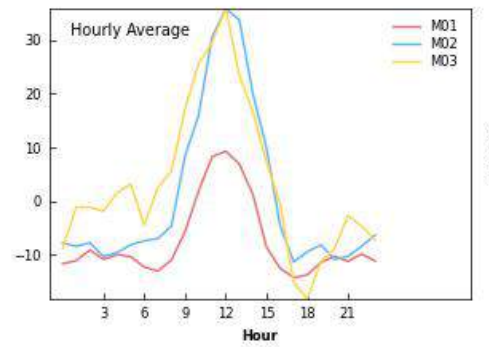
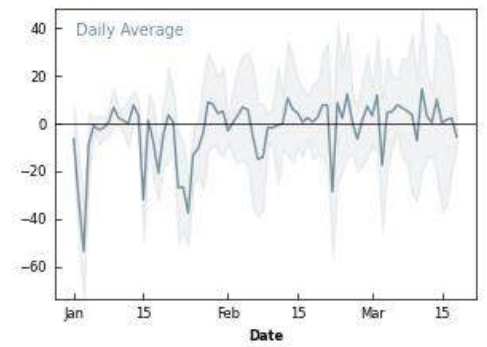
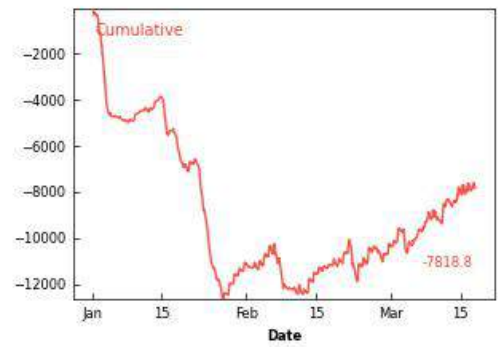
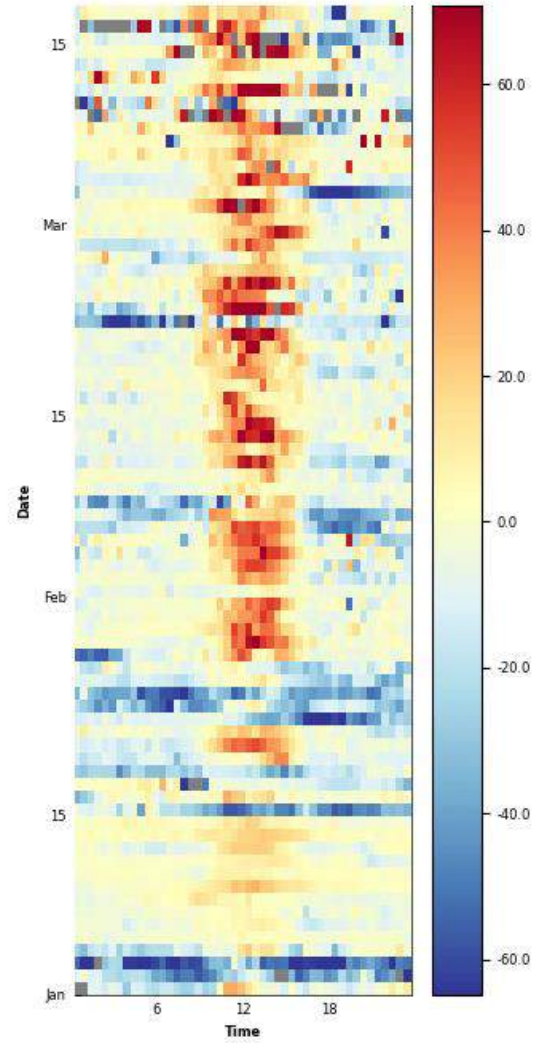
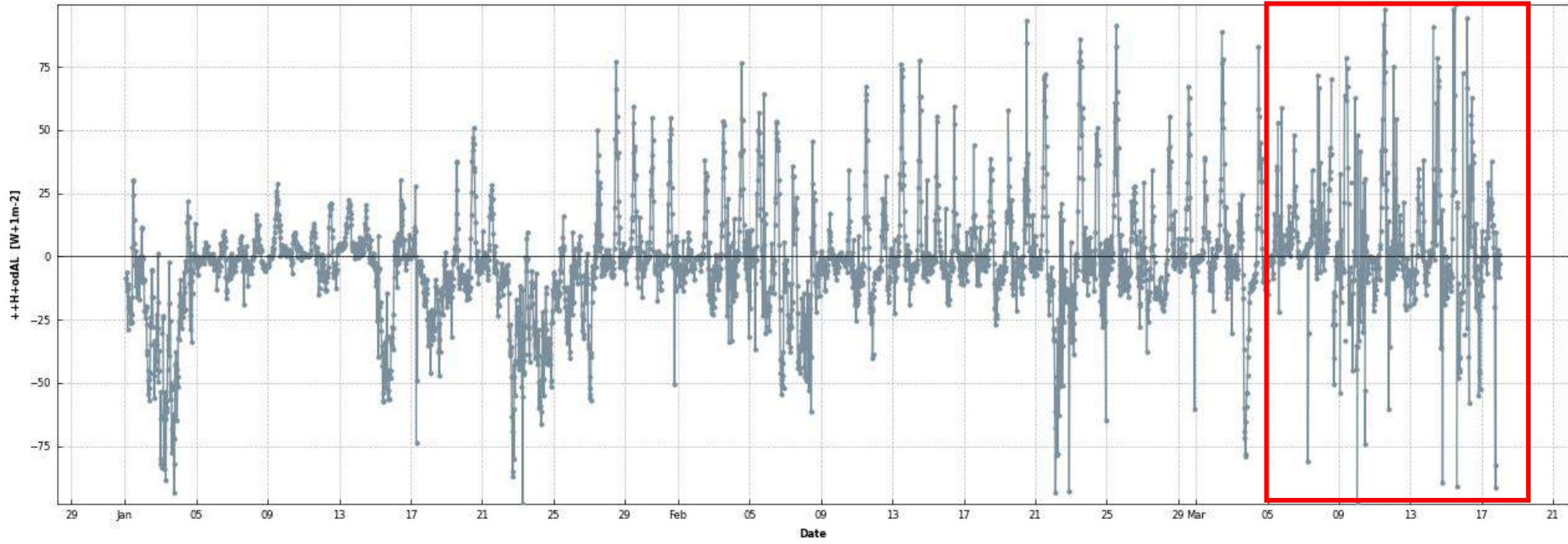
Absolute limits applied [-20, +20]



🕒 12:00 - 17:00 👤 Martin Rüegg, Lorenz Allemann 📢 HW_MOD
Changed sonic power supply from PCI back to normal Powersupply. Seems like the cable and not the powersupply was the issue.



Absolute limits applied [-0.5, +2]



Absolute limits applied [-100, +100]

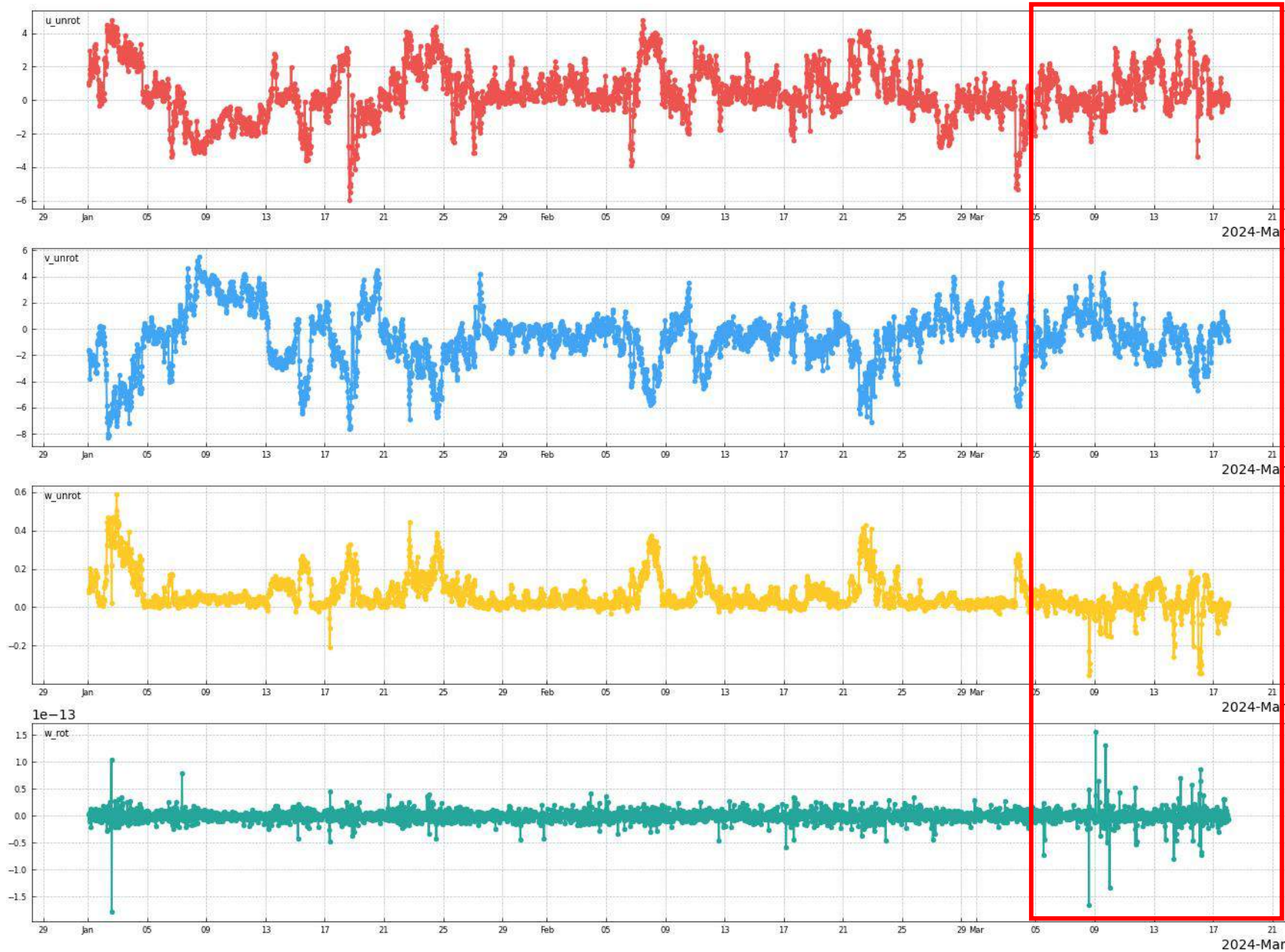
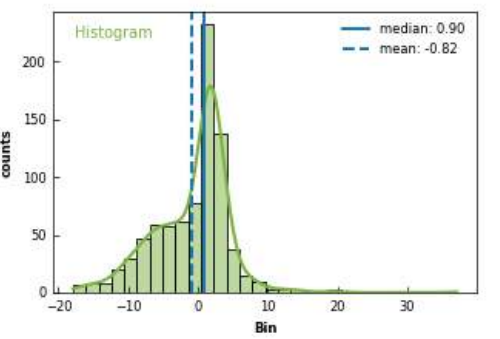
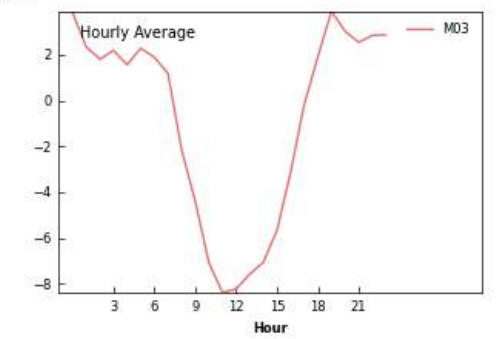
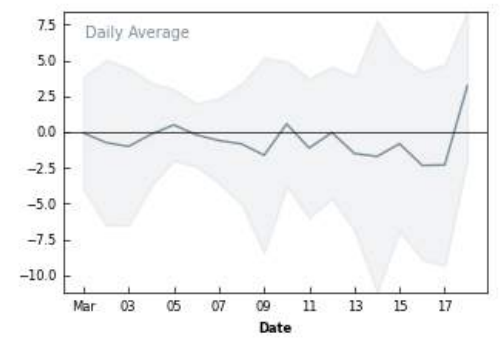
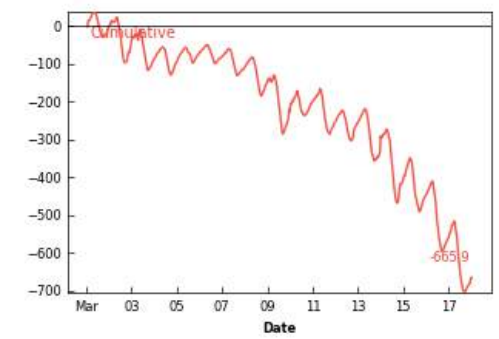
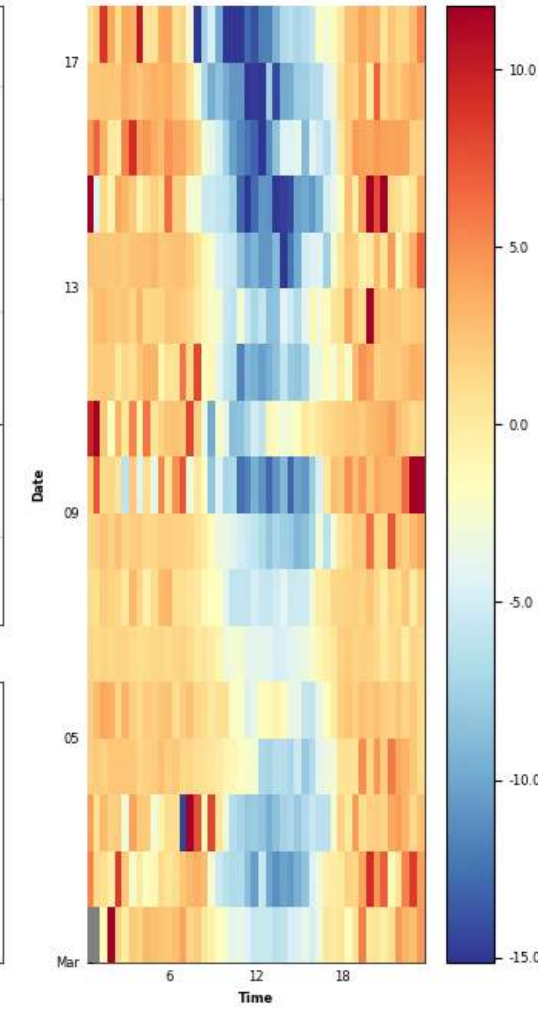
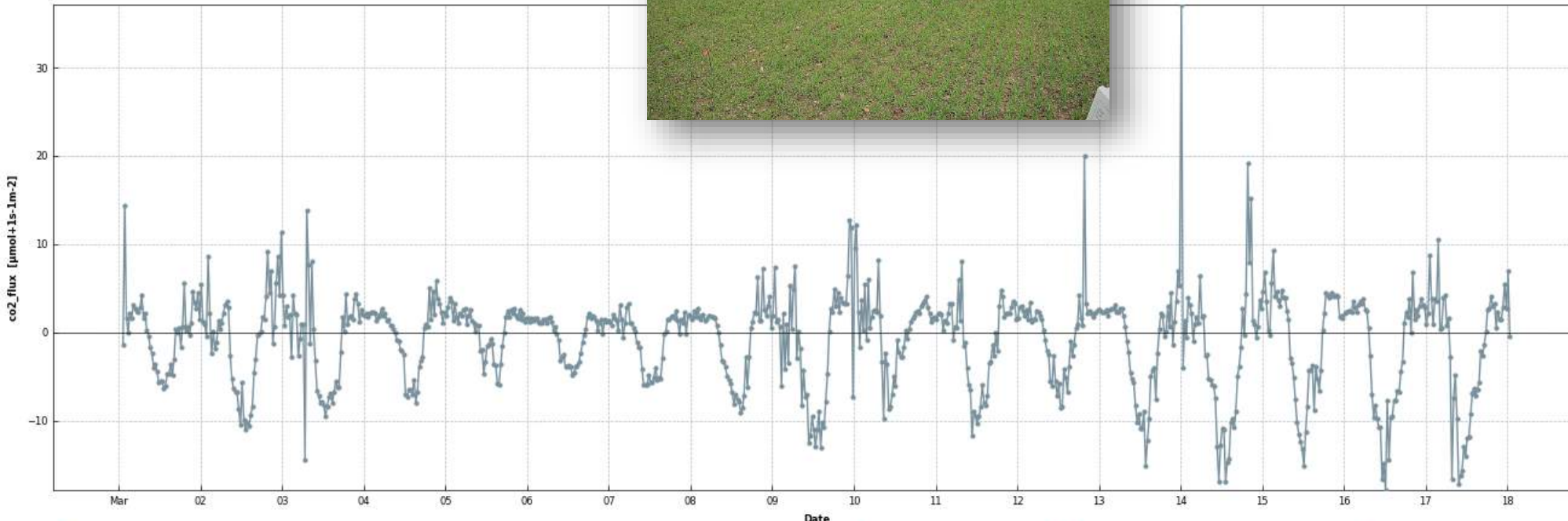
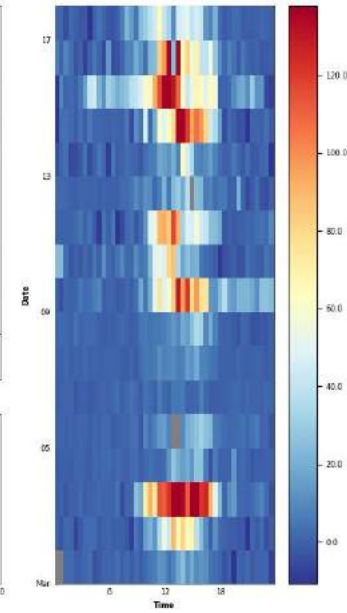
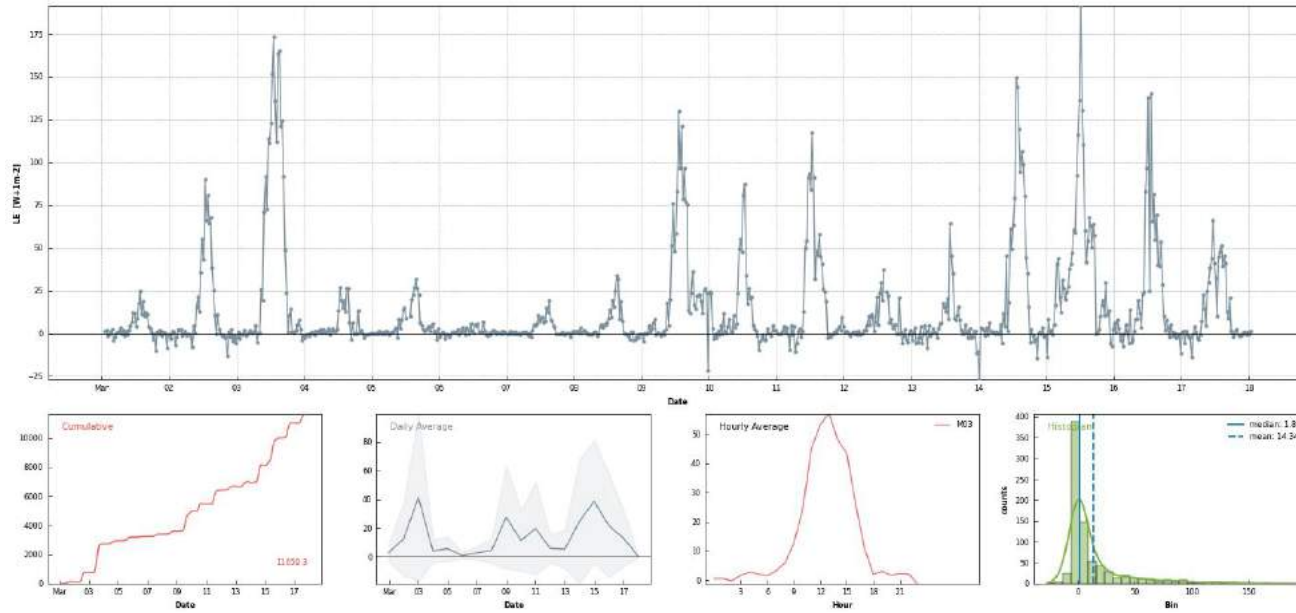




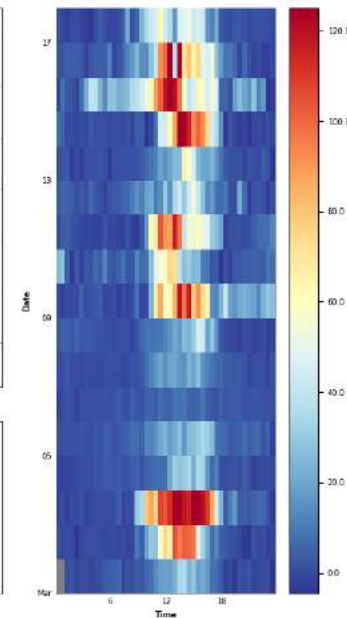
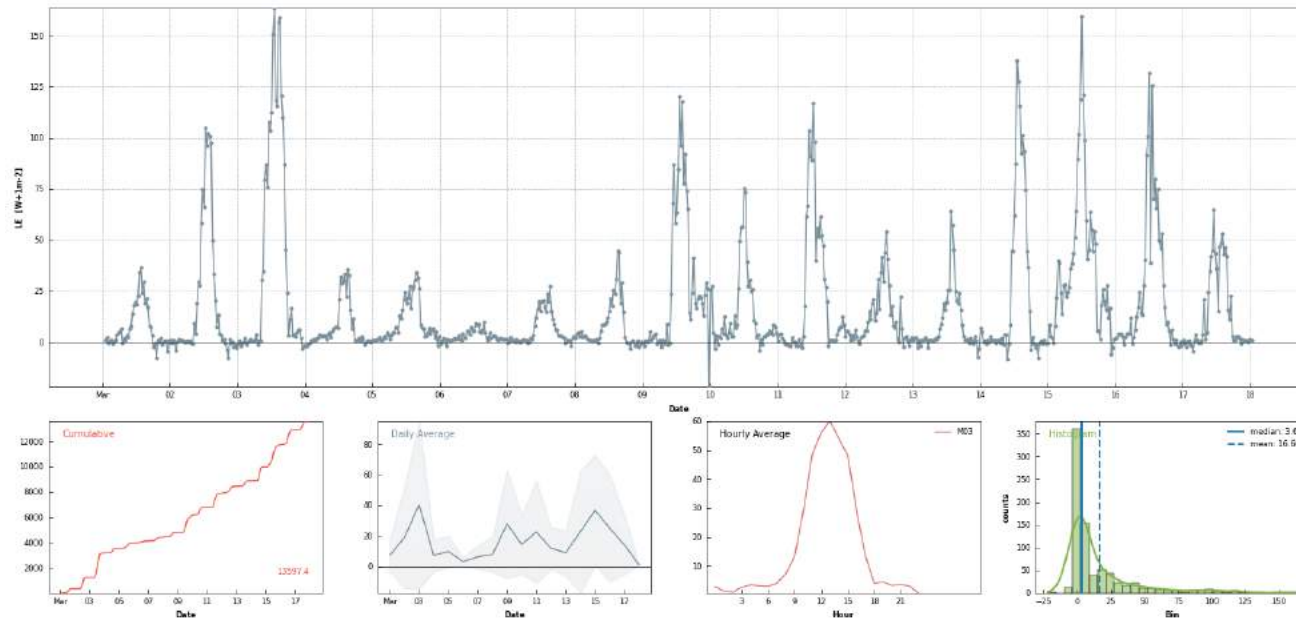
Photo: Fabio Turco



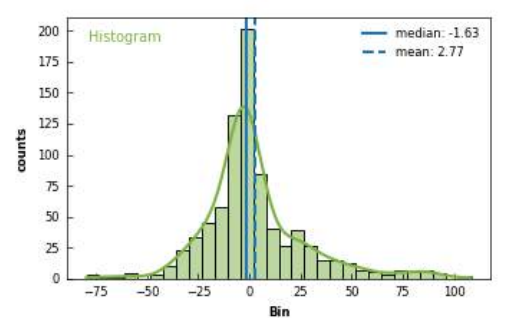
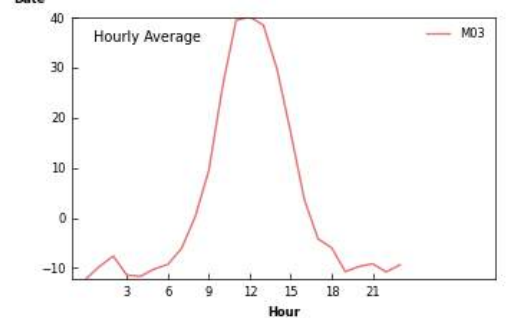
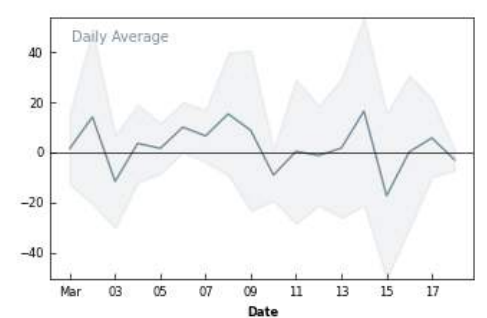
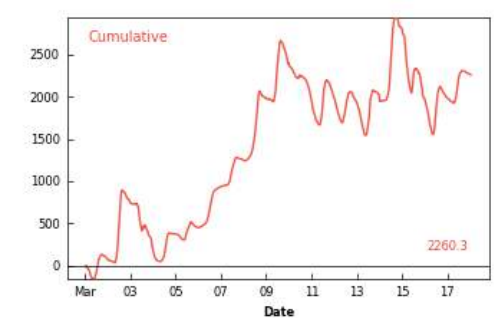
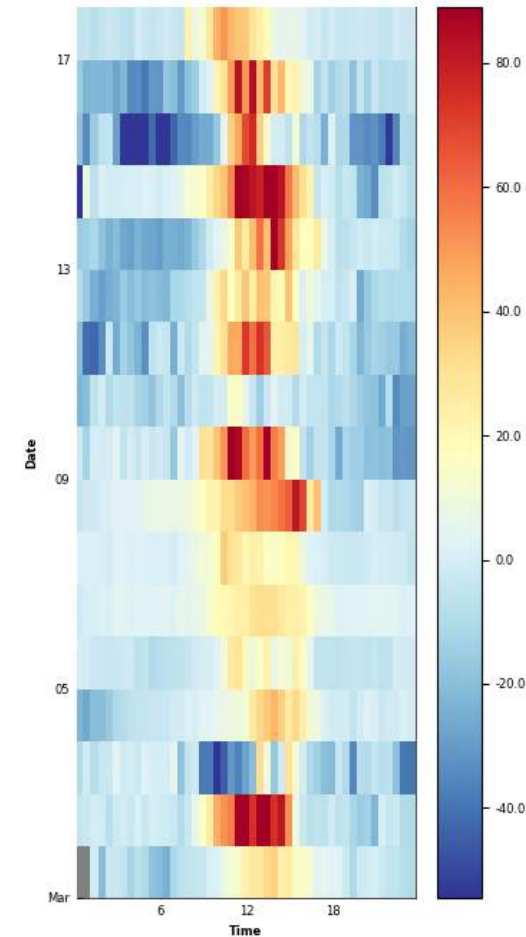
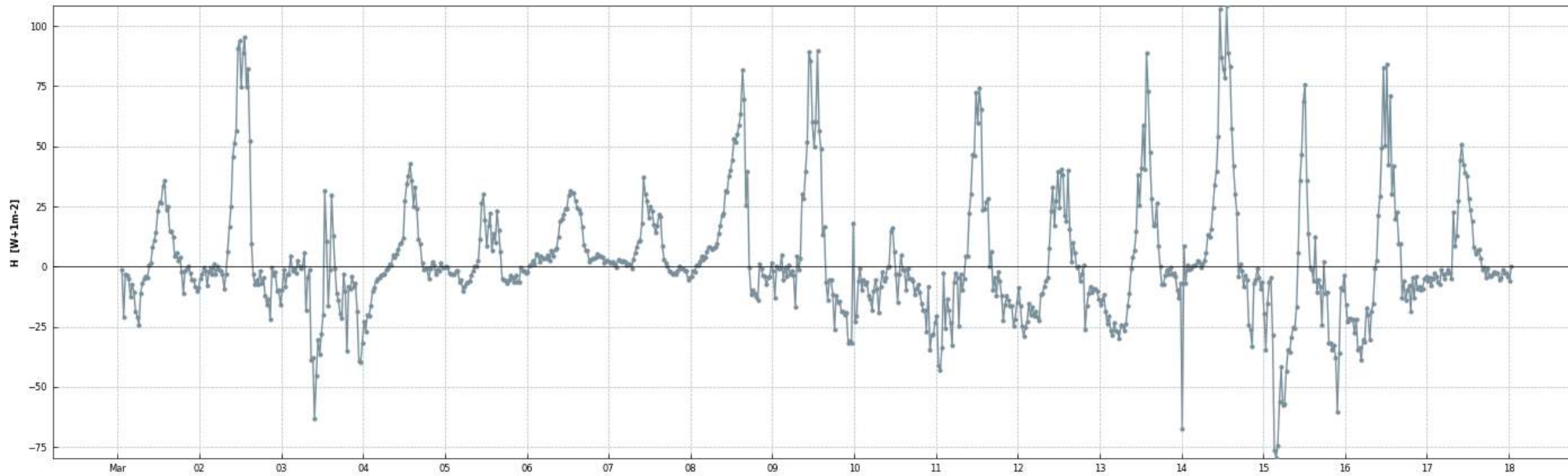
LGR

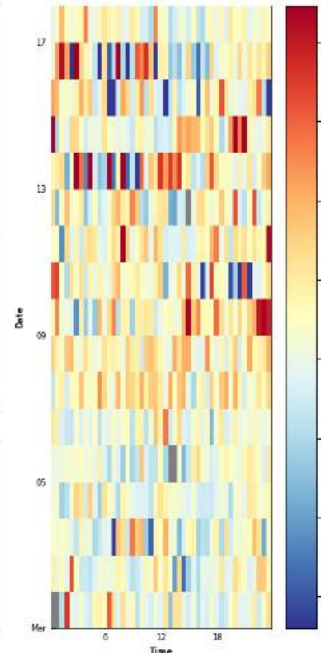
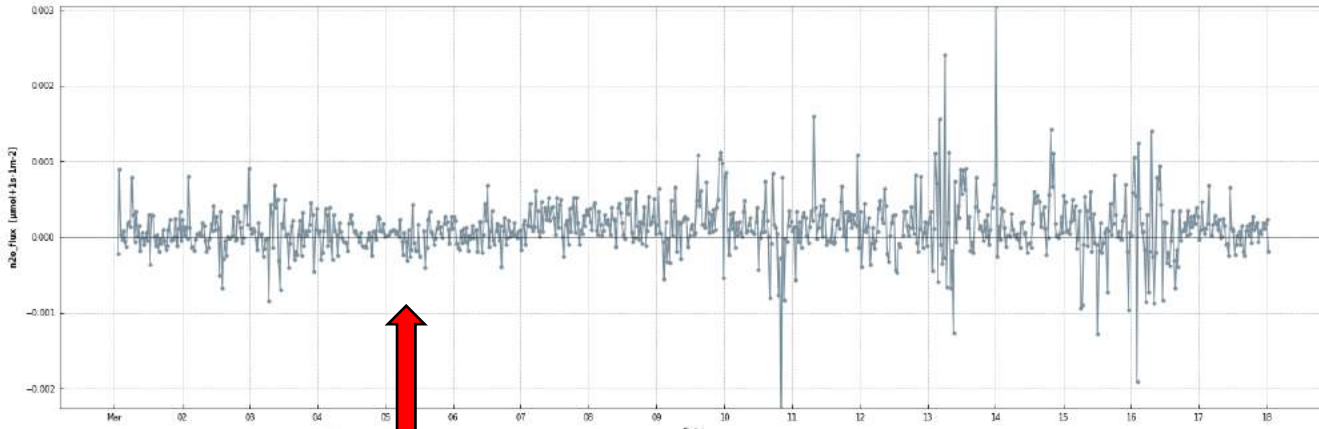


IRGA

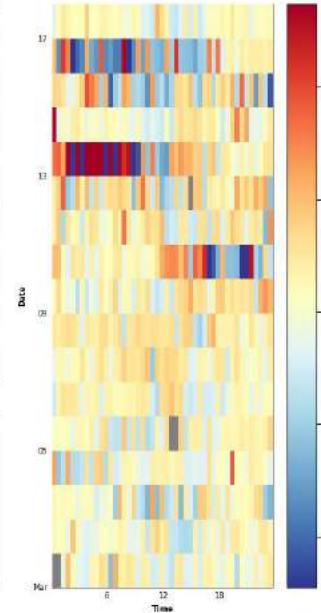
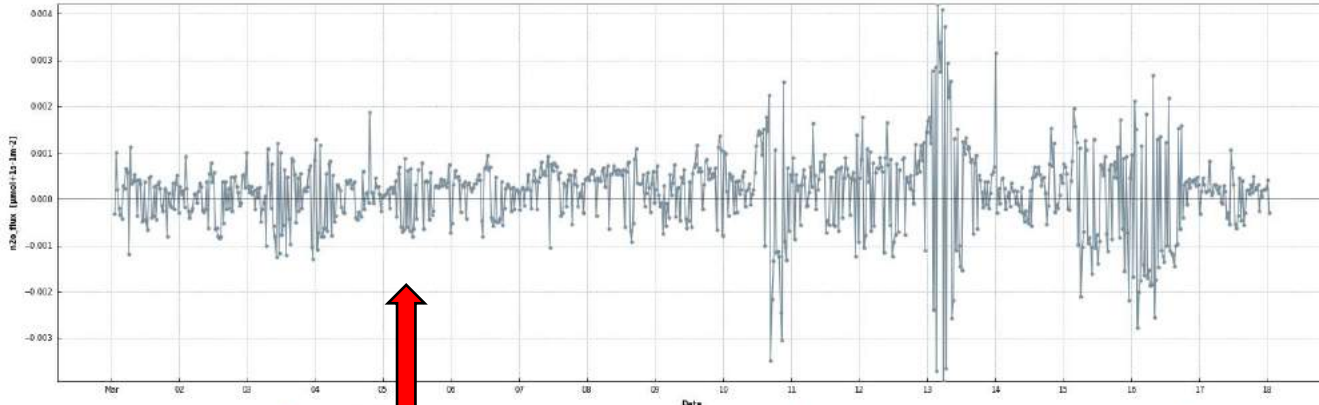
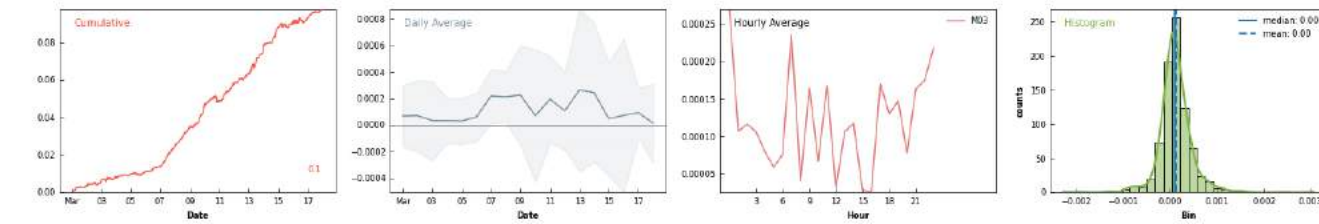


Quality check for LGR to make sure the LE flux is comparable to IRGA's

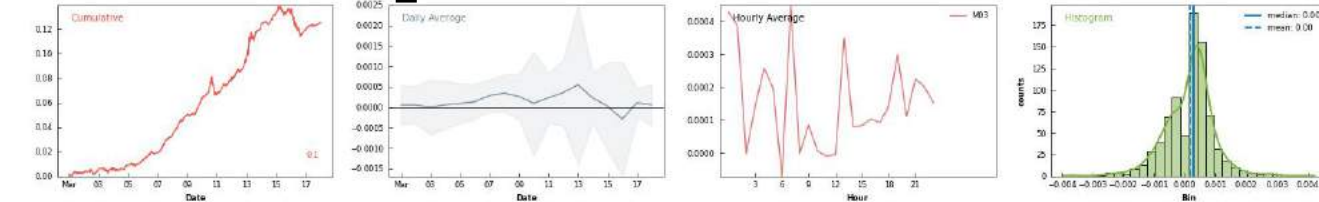


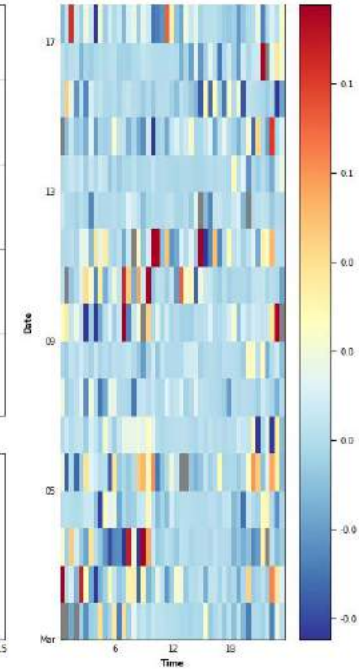
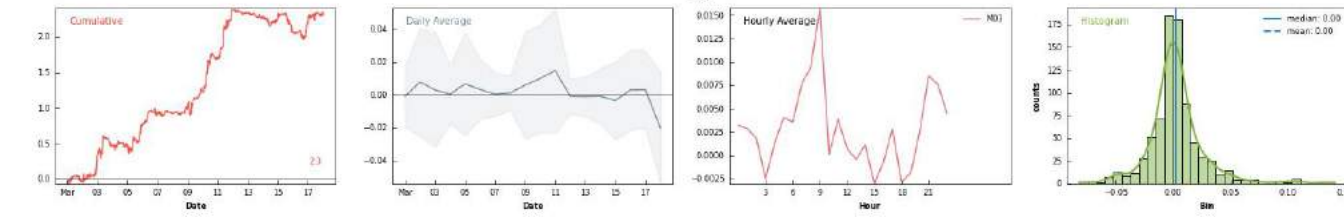
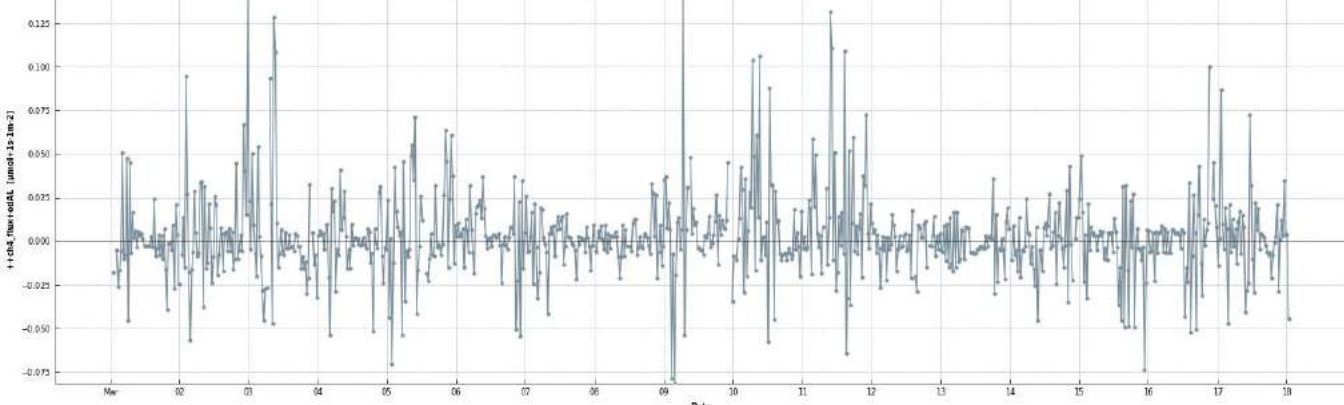
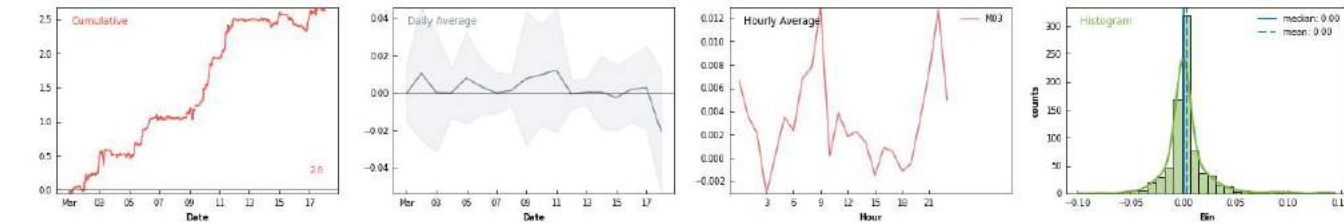
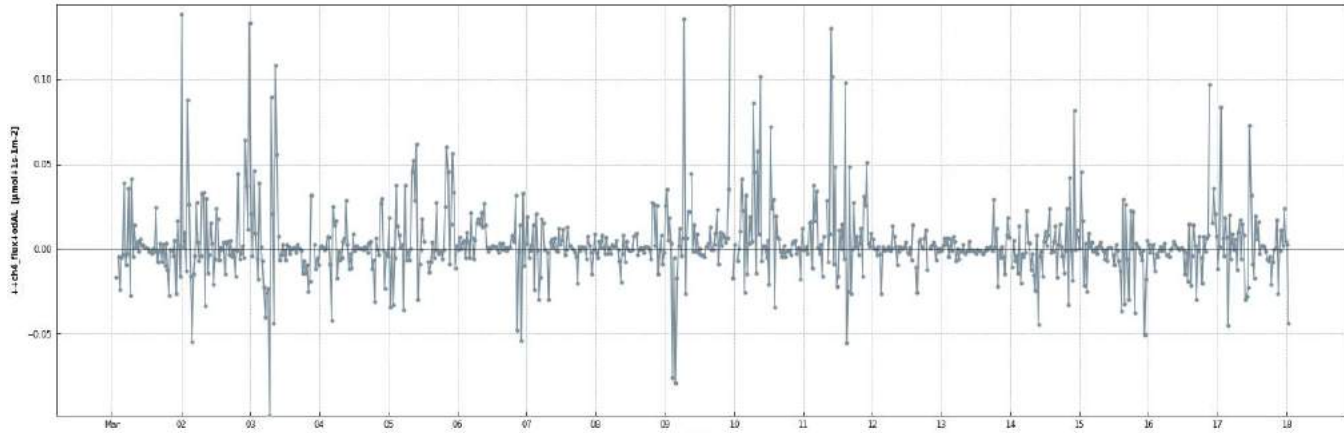


With constant time lag (1.5 s)

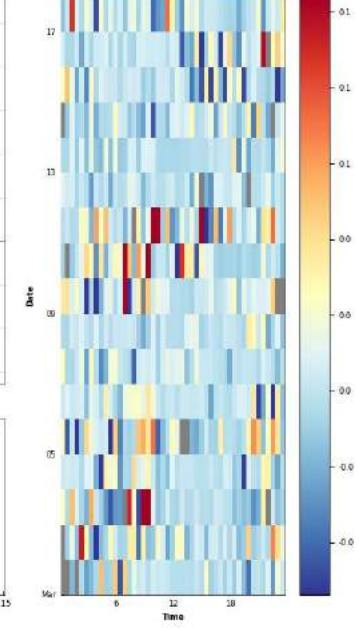


Covariance maximization (-1 to 10 s window)





With constant time lag (1.5 s)



Covariance maximization (-1 to 10 s window)

