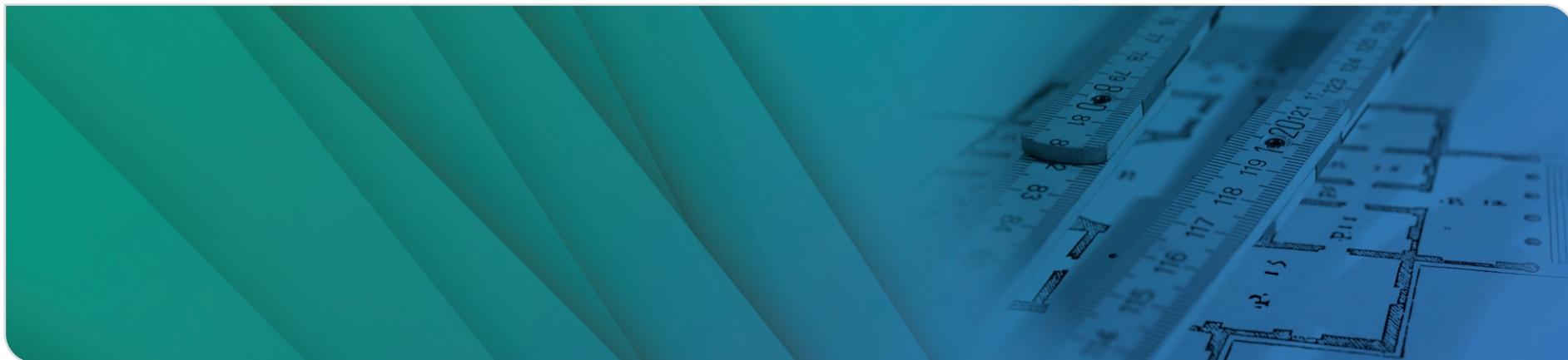


COCCON / EM27/SUN Telecon

24th of April 2024



Agenda

■ Introduction by Frank Hase, KIT

Towards traceable remote sensing GHG measurements & data products

■ Presentation by Benedikt Herkommer, KIT

Comparison of the PROFFAST2.4 XGas results on different platforms and using different compilers (15 min)

■ Annmarie Eldering (NIST) and Elizabeth Spicer (University of Oklahoma)

An interactive discussion about the usage of an EM27/SUN (60 min)

- Introduction
- Background and Motivation
- Discussion of key-points from the survey
- Next Steps

Comparison of the PROFFAST2.4 XGas results on different platforms and using different compilers

Used settings



Windows 10, pre-compiled binaries delivered as default with PROFFAST2.4. Used as “reference”. (W10, ifort)



Windows 10, gFortran 8.3 (W10, gF8)

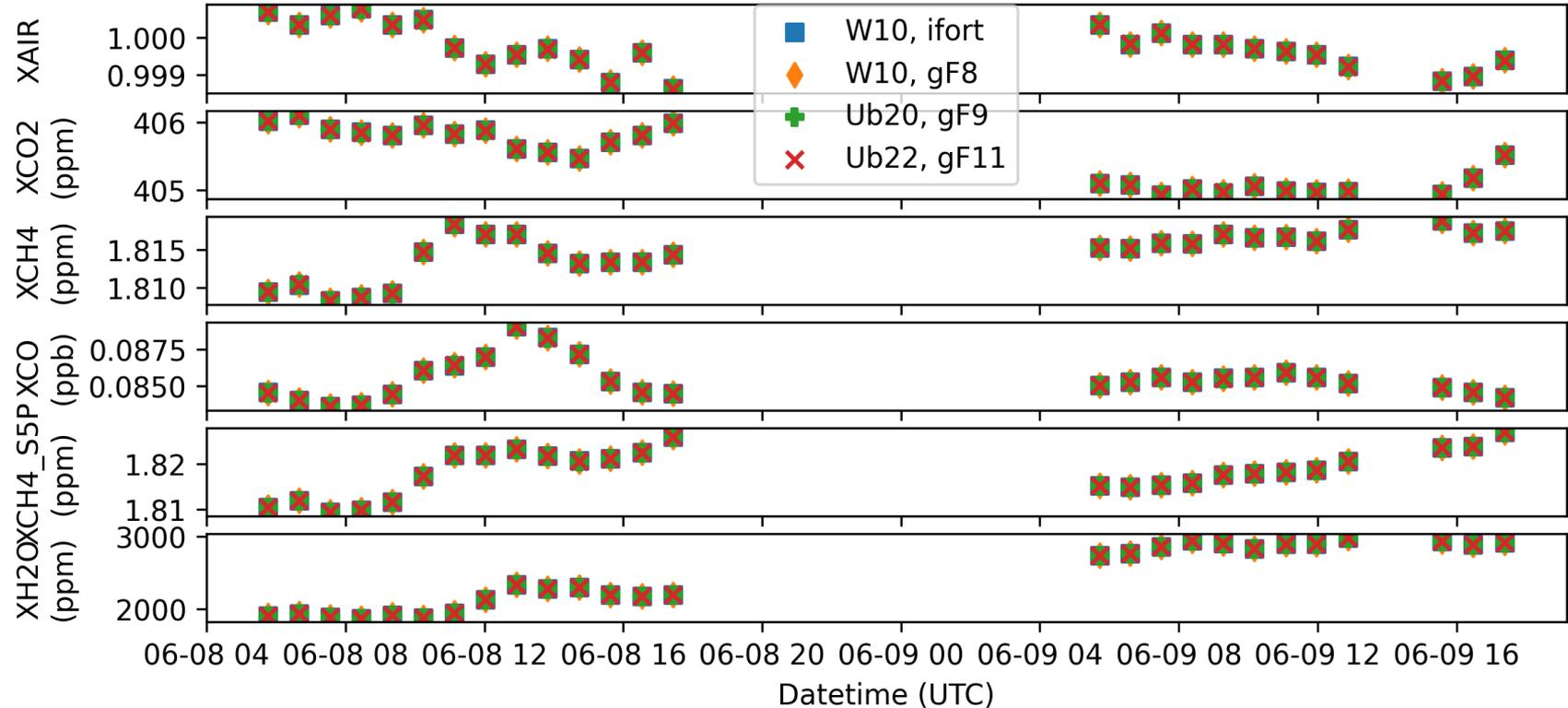


Ubuntu 22.04, gFortran 11.4 (Ub22, gF11)

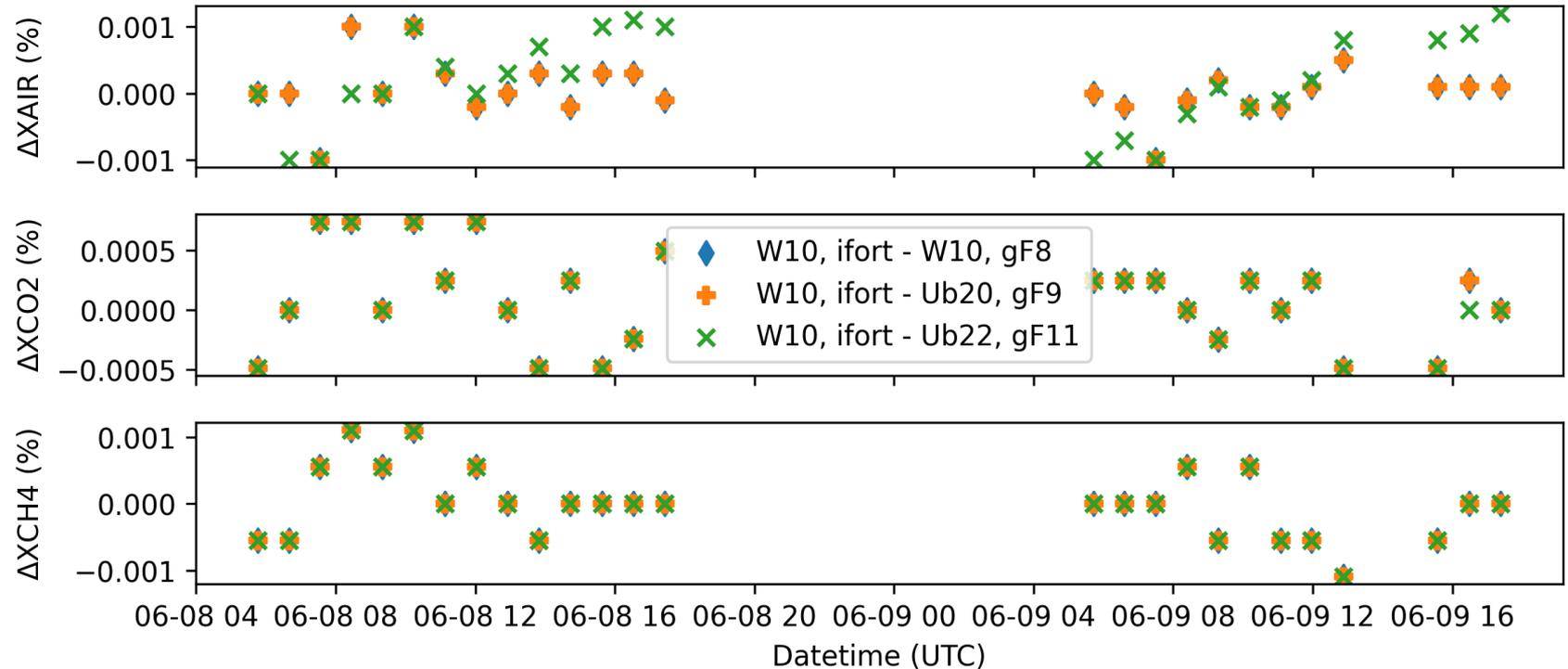


Ubuntu 20.04, gFortran 9.4 (Ub20, gF9)

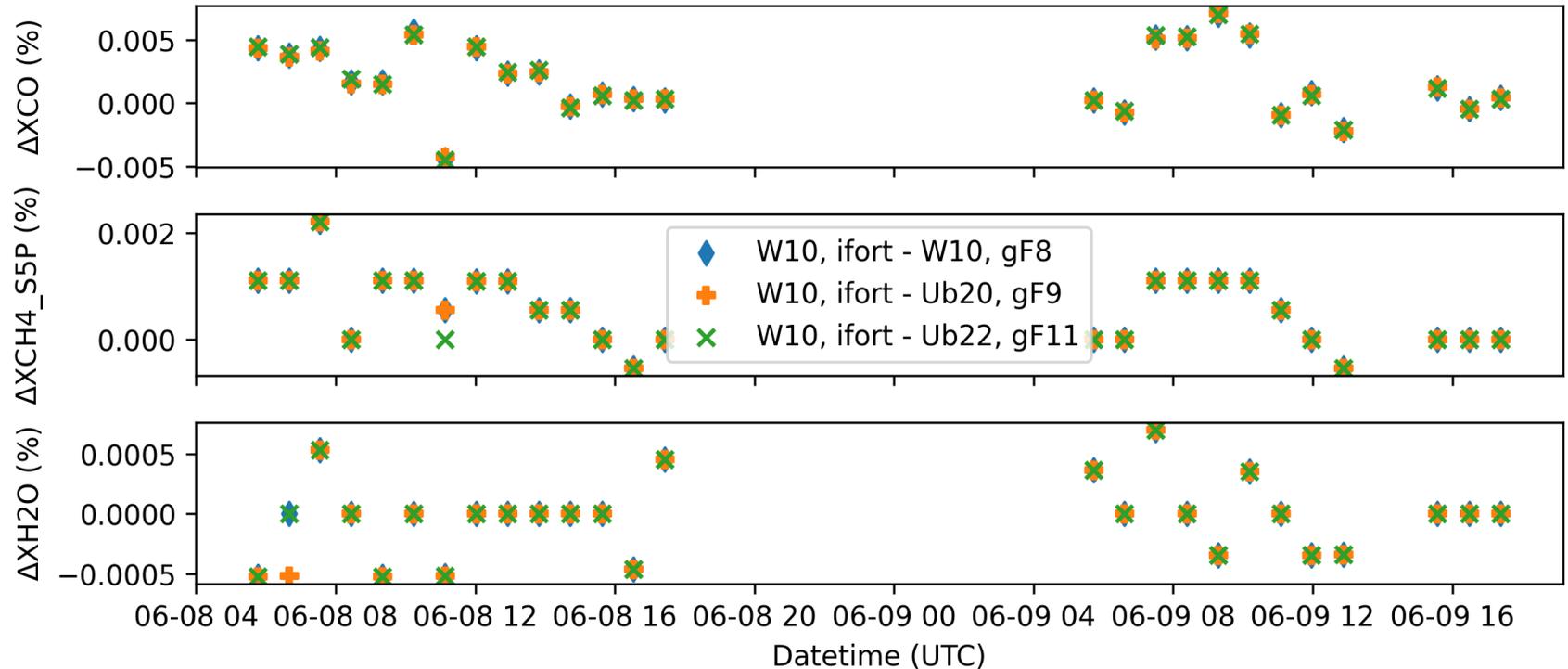
Comparison Overview



Relative deviations



Relative deviations



Conclusion and Outlook

- Deviation relative to “reference setup” is in the sub-per mille range!
- Error due to compiler/OS is order of magnitudes smaller than instrumental accuracy
- No problem to use different settings.
- More information about the changes in PROFFAST2.4 + PROFFASTpylot 1.3 in the next telecon:

**6th of June 2024
06:00 UTC**