

Notes of the COCCON EM27/SUN meeting at June 6th 2024

Here are some notes of the discussions and ideas of the telecon.

Please note that these notes are not a complete record. Rather it tries to sum up the most important points of the discussion. Furthermore, no liability is taken in case of any misunderstandings.

However, if you think an important point is missing please email to benedikt.herkommer@kit.edu.

List of participants:

Stefano Casadio (SERCO), Elisa Castelli (CNR-ISAC), Jia Chen (TU Muenchen), Lena Feld (KIT), Matthias Frey (National Institute for Environmental Studies, Japan), Giacomo Gostinicchi (SERCO), Elaine Gottlieb (University of Harvard), Lukas Grosch (IUP Bremen), Frank Hase (KIT), Katharina Heimerl (Vrije University Amsterdam), Benedikt Herkommer (KIT), Neil Humpage (University of Leicester), Tomi Karppinen (Finnish Meteorological Institute), Mortiz Makowski (TU Muenchen), Astrid Mueller (National Institute for Environmental Studies, Japan), Nicolas Neumann (IUP Heidelberg), Gregory Osterman (JPL), Eliezer Sepulveda (AEMET/TRAGSATEC), Noemie Taquet (AEMET/TRAGSATEC), Yao Te (Sorbonne University), Jasmin Vestner (KIT), Mingmin Zou (Anhui University, Hefei, China)

1) Scaling up EM27 Operation Using Automation: The EM27 Retrieval Pipeline by Moritz Makowski

- In Munich they have the “MuccNet” which is a city-network of 5 EM27/SUN operation fully automated.
- Therefore, a lot of data is generated. To process these fast, the TU Munich developed the “EM27/SUN Retrieval Pipeline”.
- For more details, see the slides.

2) Presentation of the updates in PROFFST2.4 and PROFFASTpylot1.3 by Lena Feld, Frank Hase, Benedikt Herkommer and Jasmin Vestner.

- PROFFAST + pilot have been updated. For more details see slides.
- Questions after the presentation (partly by mail):
 - Q: Is there a Git Repository for PROFFAST?
 - No, not yet. But it is planned to do so. Will come soon.
 - The correction factors (ADCF, AICF, XH2O) are done in a post-processing way by Pylot after PROFFAST (invers) or by PROFFAST itself?
 - No, the ADCF, AICF, and XH2O corrections are all done by PROFFAST (by INVERS). But we have established new sets of parameters (which are part of the invers Input file).
 - Q: These values of these corrections have changed between PROFFAST version 2.2, 2.3 2.4?
 - Yes, a bit larger between 2.2 and 2.3, and again to 2.4. The changes between 2.3 and 2.4 are significantly smaller than they were between 2.2 and 2.3. In 2.3 the H2O correction was introduced. In 2.4. we tried to have the calibration as close as possible to version 2.3.