

Notes of the COCCON EM27/SUN telephone conference at January 17th 2023

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:

Greg Osterman (JPL), Dave Pollard (NIWA), Jueun Kim (Chungnam National University Korea), Katharina Heimerl (Vrije University Amsterdam), Noemi Taquet (UNAM), Pascal Jeseck (Sorbonne University), Yao Te (Sorbonne University), Wolfgang Stremme (UNAM), Josh Laughner (JPL), Matthäus Kiel (JPL), Nasrin Pak (UoT), Lawson Gillespie (UoT), Elizabeth Spicer (University of Oklahoma), Diogo Medeiros (University of Sao Paulo), Hajar El-Habchi-el-fenniri (University Reims), Wesley Honeycut (Ocklahoma State University), Aaron Meyer (LANL), Gretchen Keppel-Aleks (University of Michigan), Marios Mermigkas (University of Thessaloniki), Jieun Kim (National University of Korea), David Noone (University of Auckland), Bianca Baier (NOAA), Neil Humpage (University of Leicester), Felix Vogel (University of Toronto), Jia Chen (TUM), Lena Feld (KIT), Frank Hase (KIT), Benedikt Herkommer (KIT)

1) Presentation by Nasrin Pak and discussion afterwards:

- What is the Idea of having one standard. Is this any special device?
 - There is nothing special about this EM27. It is used to compare against a common standard.
- What was the problem with the tracker that one EM27 needed to share the tracker with the TCCON spectrometer?
 - There was dust which made the motor stuck.
 - A solution was to lose the screws a bit.
 - Frank Hase: There is a good solution to clean the Tracker. Maybe Jochen (engineer from KIT) can give a short presentation about this.
- Did you use the inter comparison of the EM27s for the evaluation?
 - Yes it was applied before comparing it to the TCCON instruments such that all EM27 were on the same level.
- Did you apply the correction factors of KIT?
 - No, because they are retrieved with PROFFAST and UoT uses GGG.
- Was the EM27 in Eureka outside or inside for the measurements?
 - The instrument was in the lab. Did not see the temperature differences.
 - More probable that the temperature dependence is a retrieval problem, since GGG2014 does not show it.