Participant Call October 9, 2025

Participants: Paul Makar, Colin Lee, Kenjiro Toyota, Anna Vogel, Stefano Galmarini, Christian Hogrefe

Special issue manuscript status

- **Recently accepted/published articles:**
  - Activity 1: Kioutsioukis, Galmarini et al. – multi-model operational, probabilistic, and diagnostic evaluation and analysis of AQMEII4 grid models (https://egusphere.copernicus.org/preprints/2025/egusphere-2025-1091/)
    - This paper was accepted for publication on July 28 and page proofs were received and returned in September.
  - Activity 1: Hogrefe, Galmarini, Makar, Kioutsioukis et al. - multi-model analysis of ozone dry deposition diagnostics (grid-aggregated and LU-specific) and LU information (https://egusphere.copernicus.org/preprints/2025/egusphere-2025-225/)
    - This manuscript was accepted for publication on June 16. Page proofs were returned to Copernicus on August 27.
    - During proofreading, discovered one erroneous statement in Section 3.3 regarding the data subset used in the analysis shown in Section 3.2 (all text and figure legends in Section 3.2 correctly describe the data subset used in this analysis). Editor approval to correct the erroneous statement was obtained in September, updated typeset files have been sent to the production department, and the page charge invoice has been received. Publication should be imminent.

- **Other active work:**
  - Activity 2: Vogel et al. - error estimation analysis
    - Annika still plans to resume her analysis and a possible extension of the SI submission deadline would help
  - Activity 2 + Activity 1: Toyota et al. - updates to ozone dry deposition in GEM-MACH - how can results from Activity 2 be used to inform updates to the representation of dry deposition in regional modeling.
    - Kenjiro shared slides outlining the analyses and draft figures to be presented in his planned manuscript.
  - Manuscript led by Paul and his postdoc Stefan Miller: analysis and sensitivity of SO2 deposition. Not using AQMEII4 datasets, but the topic is relevant to AQMEII4.
    - Stefan is revising some figures now. The manuscript will be sent to internal review next week and that process is expected to take 4 - 6 weeks.
  - Activity 2: Lee, Makar et al. – physics-informed machine learning for potentially refining point model parameter values
    - Colin is exploring the use of other short-term flux datasets for this analysis and will contact Olivia about how to obtain them and get permission from the site PIs for using them.
  - Activity 1: Lee, Makar, Soares et al. – hierarchical clustering using AQMEII4 data
    - Colin started to retrieve some of the gridded model fields from the tape archive.

- Activity 1: No update on Paul's potential analysis quantifying the effects of particle aerosol being captured by wet dep measurements but accounted for as dry deposition in the model are when comparing modeled wet deposition to observed wet deposition.
- Activity 2: Potential manuscript based on Vladislavs' and Laurens' work with the MLC-Chem model using the Borden Forest data prepared for Olivia's AQMEII4 paper.
    - Laurens shared via email that he will proceed to work with Vladislavs on a manuscript from Vladislavs' thesis study on the representation of soil moisture in the Borden Forest deposition calculations.

- Potential extension of SI submission deadline:
    - During the November call, the group will decide whether to ask Stefano to ask Copernicus for another extension of the SI submission deadline. In June 2025, the submission deadline was extended from August 2025 to December 2025.

- **Previously published articles:**
    - Galmarini et al. (2021) Activity 1 overview technical note (https://acp.copernicus.org/articles/21/15663/2021/)
    - Hogrefe et al. (2023) analysis of EPA CMAQ NA simulations (https://acp.copernicus.org/articles/23/8119/2023/)
    - Clifton et al. (2023) Activity 2 overview manuscript (https://acp.copernicus.org/articles/23/9911/2023/)
    - Makar et al. (2025) Critical loads ensemble manuscript (https://acp.copernicus.org/articles/25/3049/2025/
    - Khan, Clifton, et al. (2025) Observational constraints on stomatal conductance https://acp.copernicus.org/articles/25/8613/2025/

Next Call

The next call is scheduled for Thursday November 13.