Participant Call April 20, 2023

Participants: Paul Makar, Aura Lupascu, Ummugulsum Alyuz, Richard Kranenburg, Christian Hogrefe, Jesse Bash, Jon Pleim

Grid intercomparison (Activity 1)

- Model data updates:
    - Christian: No updates on data uploads since the last call
- Data processing updates:
    - Christian: No updates on data processing since the last call
- Data storage updates:
    - No updates since the last call - Files for 10707, 10710, and 10712 (initial tests only) as well as the latest set of receptor extractions are still on the sftp server until the next, final batch transfer will occur, all other files have been transferred to the ENSEMBLE server
- Analysis updates:
    - Iannis prepared and shared an ITM extended abstract on initial results from the evaluation of Activity 1 model simulations
    - Paul prepared and shared an ITM extended abstract on initial results from his critical load ensemble analysis
    - Items flagged for follow-up in a March 7 email based on screening plots in results/20230306 on the sftp server:
        - 10707: the sum of the effective conductances often exceeds the deposition velocity - Richard hopes to have a look at this next week.
        - 10702: the DFLUX variables (effective fluxes) for 0241 (NA 2010) appear to have a unit issue that will have to be taken into account during analysis. No updates to the uploaded fields are expected.
    - Paul shared slides on initial results from his critical load ensemble analysis:

Point intercomparison (Activity 2)

- Activity 2 overview manuscript was submitted on March 13 and accepted as EGUSpheres / ACPD discussion paper based on the editor's decision on March 21 (https://egusphere.copernicus.org/preprints/2023/egusphere-2023-465/). Two reviewers have now accepted the review invitation.

- Activity 2 call held April 4. Call notes have been posted to the github site.

Special issue

- Galmarini et al. (2021) Activity 1 overview technical note - published (https://acp.copernicus.org/articles/21/15663/2021/)
- Hogrefe et al. (2023) analysis of EPA CMAQ NA simulations - reviewer comments received, revisions due May 23 (https://acp.copernicus.org/preprints/acp-2023-10/)
- Clifton et al. (2023) Activity 2 overview manuscript - currently in open discussion (https://egusphere.copernicus.org/preprints/2023/egusphere-2023-465/)
- Additional planned / potential manuscripts:
    - Activity 1: Kioutsioukis et al. – multi-model evaluation and analysis of AQMEII4 grid models
    - Activity 1: Makar et al. – critical loads ensemble analysis
    - Activity 1: Makar et al. potential manuscript on dry deposition updates to GEM-MACH - how can results from Activity 2 be used to check/update the representation of dry deposition in regional-scale modeling
    - Activity 2: Khan, Clifton, et al. – observational constraints on stomatal conductance and point model sensitivity simulations
    - Activity 2: Lee, Makar, et al. – use of meteorological cluster analysis for point model evaluation
    - Activity 2: Lee, Makar et al. – physics-informed machine learning for potentially refining point model parameter values
    - Activity 2: Bash et al. – use of AQMEII4 flux measurement for optimization of selected STAGE resistances

HTAP virtual workshop: Olivia presenting an update on AQMEII4 at the HTAP spring virtual workshop today.

Next call May 18