

Workshop on

Evaluating carbon flux models with atmospheric observations

An opportunity for community discussion and hands-on applications

Most bottom-up carbon flux models are developed and evaluated with flux tower data, then compared to other models on landscape to regional scales, rather than atmospheric data

- which may lead to regional biases.

Through this workshop, we aim to address the historical disconnect between bottom-up and top-down carbon communities by:

- providing additional resources and tools to carbon flux modelers for evaluating and improving their statistical and process-based models with atmospheric data.
- enabling discussion about the current/future needs of each community to reduce uncertainty in both atmospheric constraints and bottom-up models.

1-4pm MT Friday, May 24, 2024 UCAR Center Green Campus, Room TBD Boulder, Colorado and virtual

Coffee and snacks provided (not by NASA)

Register at above.nasa.gov/meeting_2024

Open to all atmospheric carbon and surface carbon flux observation and modeling communities Not limited to NASA ABoVE Science Team Meeting participants

Questions? Contact Luke Schiferl (<u>schiferl@ldeo.columbia.edu</u>) or Jennifer Watts (<u>jwatts@woodwellclimate.org</u>)

Expected agenda:

- Welcome and introductions
- Intro to atmospheric measurements
- Intro to transport modeling
- Intro to inverse modeling
- Discuss future needs and use of atmospheric data
- Intro to regional analysis
 framework for Arctic-boreal zone
- Hands-on work time (from 3pm MT)



Evaluate your carbon flux model* during the workshop hands-on component

No atmospheric experience needed! Just bring your bottom-up flux model output (and computer running R)

Some pre-formatting of fluxes is required. Please note during registration if interested in hands-on component - instructions will be sent.

*ABoVE region (Alaska and northwest Canada) bottom-up carbon (CO₂, CH₄) flux models only