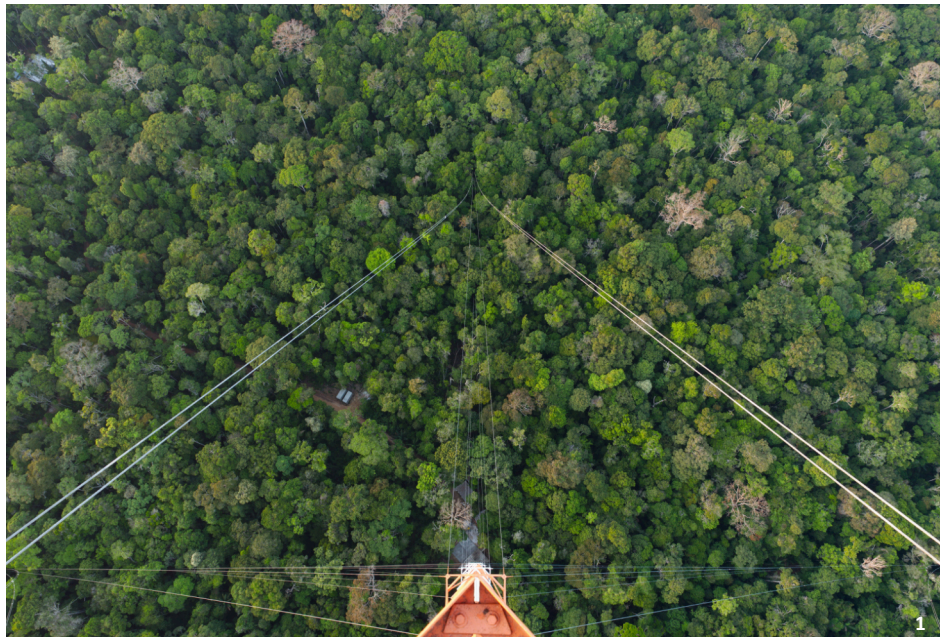




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ATTO SEMINAR SERIES

TUESDAYS AT 4PM CEST / 10AM AMT



Our annual ATTO meeting could not take place last year due to the COVID pandemic, and we do not know when it will be possible for the whole team to meet in Manaus again. But we still want to hear about all of your projects and meet at least in a virtual space.

Therefore, we recently started the new ATTO seminar series. Every other Tuesday we will gather on ZOOM at 4pm CEST / 10am AMT.

The seminars will include:

- 5 minutes for announcements from PIs (incl. new people joining ATTO, students recently defending, new publications, new grants etc.)
- 30 min talk + 10 min discussion

OR

- 2x 15 min talks + 5 min discussion each

The topics for the presentation can include preliminary or final result from ATTO-related studies, new sub-projects or methods discussions of overarching topics, as well as brainstorming for other activities.

You will receive the link with a reminder via the mailing list before each seminar.

All talks should be given in English, and slides should be made available to the team afterwards [here](#)[?]. You can upload them [here](#)[?].

We are looking for volunteers to present at these seminars. To sign up, please contact Iris Möbius (iris.moebius@bgc-jena.mpg.de) with the following information:

- name of the speaker
- (preliminary) title of the talk
- preference for a date, if any
- whether you want a 30 min or a 15 min talk

For announcements, please also contact Iris beforehand. We would ask you to prepare a slide, e.g. with the name and photo of the new team member.

Looking forward to seeing you again and hearing what you have been up to!

NEW PUBLICATIONS

PAPERS PUBLISHED BETWEEN FEBRUARY 2021 AND MAY 2021

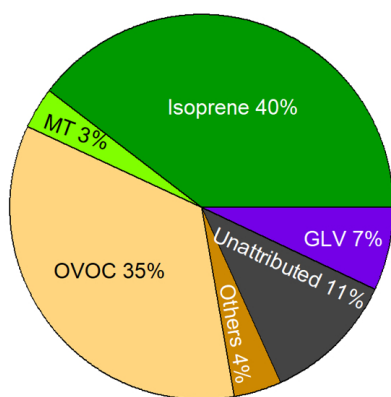


Pfannerstill et al.

Total OH reactivity over the Amazon rainforest: variability with temperature, wind, rain, altitude, time of day, season, and an overall budget closure[†], *Atmos. Chem. Phys.*

Biogenic volatile organic compounds remove OH from the atmosphere through chemical reactions, which affects processes such as cloud formation. In a new study, Pfannerstill et al. were able to close the budget of total OH reactivity, and reveal the important contributions of previously not-considered BVOCs species and underestimated OVOCs. In addition, they analyzed daily, seasonal and inter-annual cycles of OH-reactivity at various heights above the forest canopy.

86 VOCs + inorganic gases measured



Gonçalves et al.

Minimum temperature and evapotranspiration in Central Amazonian floodplains limit tree growth of *Nectandra amazonum* (Lauraceae)[†], *Trees*

Tree growth is affected by ecological and climatological factors, which Gonçalves et al. analyzed with tree ring dendrochronology on the species *Nectandra amazonum* in the Central Amazonian várzea floodplains. They found that tree growth does not respond to the annual long-term flooding, indicating that *Nectandra* is more resilient to disturbances of the hydrological cycle than other species. Instead, growth rates respond to variation of minimum temperature and evapotranspiration.



Komiya et al.

Characterizing water vapour concentration dependence of commercial cavity ring-down spectrometers for continuous on-site atmospheric water vapour isotope measurements in the tropics[†], *Atmos. Meas. Tech.*

Komiya et al. investigated the performance of commercial cavity ring-down spectroscopy analyzers for measuring $\delta^{18}\text{O}$ and $\delta^2\text{H}$ in atmospheric moisture at H_2O levels up to 41 000 ppm, which exceed the range of previous studies. They identified the most appropriate calibration strategy for H_2O dependence, adapted to the calibration system, and could show that the cavity ring-down spectroscopy analyzers, appropriately calibrated for H_2O dependence, allow the detection of natural signals of stable water vapor isotopes at humidity levels typical for rainforests.

Ramsay et al.

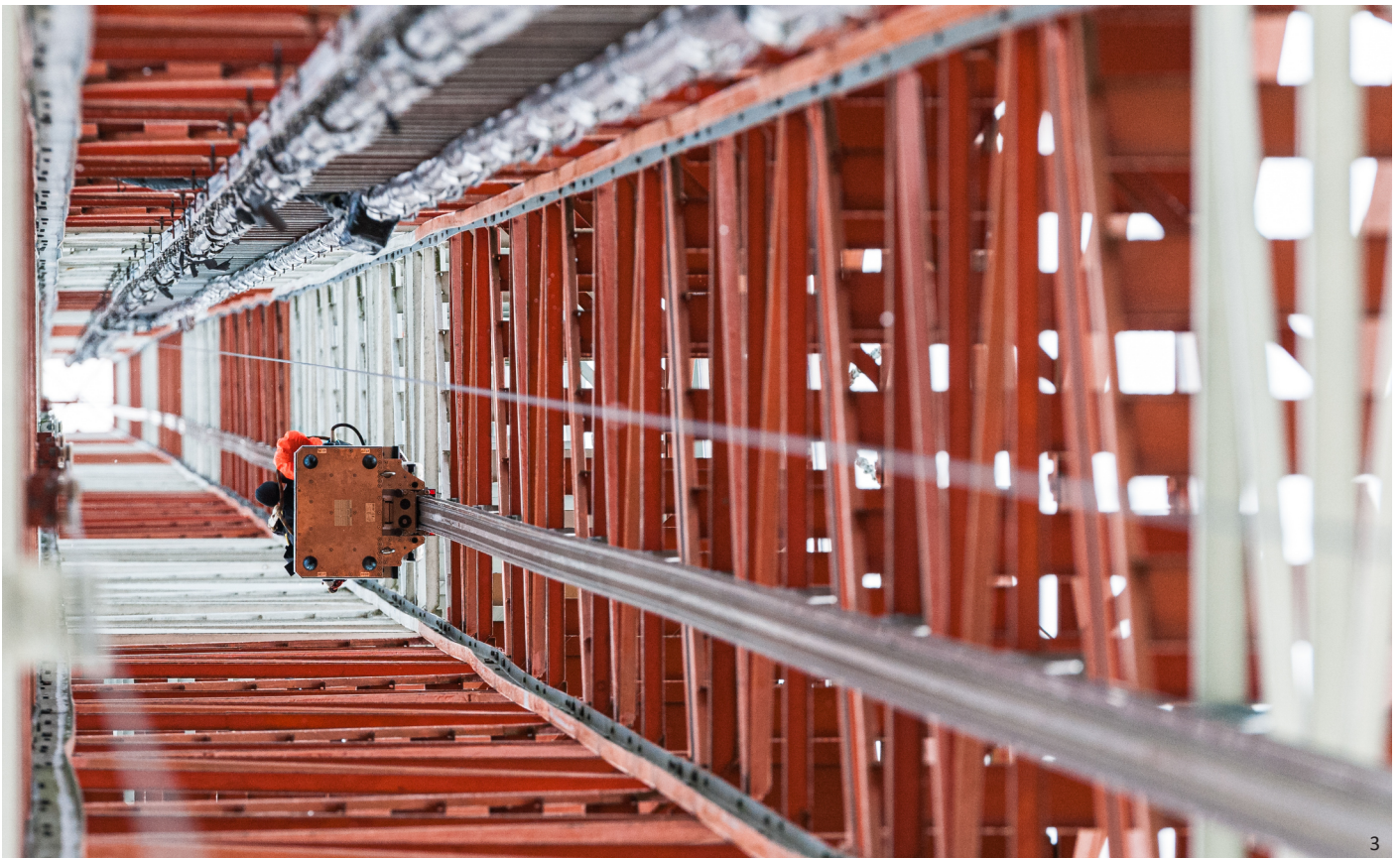
Measurement and modelling of the dynamics of NH_3 surface-atmosphere exchange over the Amazonian rainforest[†] *Biogeosciences*

Ramsay et al. measured nitrogen fluxes (mainly NH_3 and NH_4^+) at ATTO, where they are largely free of agricultural pollution. They collected data for an entire month in the dry season with hourly resolution, as well as several meteorological parameters. They found deposition of nitrogen on plant surfaces, but also emissions, perhaps from plant stomata when they are open for photosynthesis. They then developed a model that would simulate their observations. For this, they used a novel leaf wetness parameter that captures variation with greater accuracy and defines a set of parameters necessary to capture the variation in the data obtained at ATTO.

Patade et al.

Empirical formulation for multiple groups of primary biological ice nucleating particles from field observations over Amazonia[†], *Journal of the Atmospheric Sciences*

Bioaerosols may act as cloud condensation nuclei and ice nuclei, thereby influencing the formation of clouds and precipitation. But so far little is known about the ice nucleation activity of each bioaerosol group and atmospheric models have not differentiated between them. Patade et al. created a new empirical parameterization for five groups of bioaerosols, based on analysis of the characteristics of bioaerosols at ATTO: fungal spores, bacteria, pollen, plant/animal/viral detritus, and algae. This makes it possible for any cloud model to access the role of an individual group of bioaerosols in altering cloud properties and precipitation formation.



3

PROJECT PLATFORMS

HOW TO USE AND PROFIT FROM OUR PROJECT PLATFORMS



Mailing List

The ATTO Mailing List ATTO_project@bgc-jena.mpg.de is used to share information with other project members.

- Everyone working within the ATTO project should be on this mailing list, including students.
- Everyone can subscribe to this mailing list, unsubscribe or change their details by clicking on [this link](#)[↗] or on the link on the ATTO website (top of the side bar on the right)
- The mailing list is used to share information about the project, such as seminars, workshops, conference sessions, job openings, media highlights, and to distribute the newsletter
- Everyone can email information to this mailing list from a registered email address - use it if you have something of interest to share!
- Please inform new students and other new members about the mailing list and ask them to subscribe
- For things only relevant to PIs (e.g. about funding proposals etc.) there is the separate PI mailing list
- The mailing list is open even to non-ATTO members, so keep that in mind for confidential information

TeamUp Calendar

The ATTO Calendar[↗] is a tool to improve coordination between groups. When planning a trip to ATTO, please consult the calendar to check camp capacity, coordinate travel and see who will be at ATTO at the same time.

- Everyone can enter dates into the calendar without prior registration
- You can import the calendar into your Google or Outlook calendars via [iCalendar Feeds](#)[↗]
- The calendar has several categories:
 - ▶ *“Meeting/Lectures/Conferences”*: Please add scientific events, where you present ATTO (data), or other events that might be of interest to the team
 - ▶ *“Outreach/Media”*: Please add any public events where ATTO is presented, e.g. Open House or public talks. You will also find media visits to ATTO here
 - ▶ *“Science@ATTO”*: Please add scientific stays at ATTO
 - ▶ *“Tech/Support@ATTO”*: Please add stays at ATTO dedicated to maintenance and installations
 - ▶ *“Transport”*: Transport days for fuel, containers, instruments are included here
 - ▶ *“Travel”*: Please add your travel days between Manaus (MAO) and ATTO

PROJECT RESOURCES

HOW TO USE AND PROFIT FROM OUR PROJECT PLATFORMS



Data Portal Information Tab

The ATTO data portal⁷ offers more than just data. In the “Information” tab we store a lot of useful documents & resources.

They include:

- ATTO Data Policy
- Export guidelines
- Safety Regulations and First Aid Information
- Telephone list & Internet access information at ATTO
- Open Access Publishing Information (soon)
- Template for Acknowledgment-Section in ATTO papers
- Link to the archive of weekly ATTO site reports
- Archive of conference contributions
- Archive of ATTO seminar presentations

Sign up to the ATTO data portal to use available ATTO data and these additional resources!

Resources on KEEPER

Resources for the ATTO team members are stored in a cloud folder on the platform KEEPER⁷. It is maintained by Iris Möbius.

It includes:

- ATTO logo and logos of funders
- ATTO flyer (DE/EN & PT/EN versions) and ATTO infographic (DE, EN and PT versions)
- ATTO site sketch and ATTO location map (EN versions used in the flyer)
- Some highlight photos of ATTO

You may use these resources to illustrate your posters, talks, publications etc. If you have further ideas what else might be useful for you to have access to, please contact Iris Möbius at iris.moebius@bgc-jena.mpg.de.

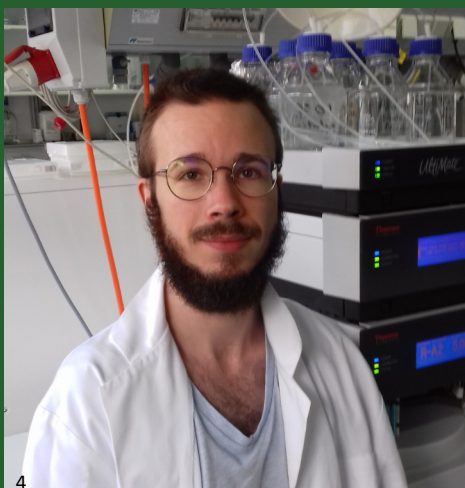
MEET THE TEAM

INTRODUCING MEMBERS OF THE ATTO CONSORTIUM



Frederik Lange, PhD at MPI-BGC⁷

Frederik is a PhD student at MPI-BGC in Jena, where he works in the Molecular Biogeochemistry group with Gerd Gleixner. He has a background in Marine Geosciences and obtained his MSc at the University of Bremen. Now he shifted gears to study terrestrial ecosystem functioning via the analysis of dissolved organic matter (DOM) in soils at Terra firme and Campina sites at ATTO and is looking forward to visit the Amazon soon.



4

Maryam Moussavi, data manager at MPI-BGC⁷

Maryam will fill in as our data manager for Marcus Guderle, who is currently on parental leave. She has a BSc in Natural Resources Engineering from the Ferdowsi University of Mashhad in Iran and an MSc in Applied Geophysics from the Universiti Sains Malaysia. For many years since has worked in data management and brings lots of experience to the project. Do not hesitate to approach her with your questions.



5

SHORT NOTICES



Juliana de Camargo and Sebastian Brill got married earlier this year. They first met at ATTO in 2017 and are both part of the project: Juliana got a degree in Environmental Engineering in Ricardo Godoi's group at the Universidade Federal do Paraná, and Sebastian is Scientific Assistant in Christopher Pöhlker's group at MPI-C, hoping to begin his PhD soon. Congratulations, and all the best for their future together!



Farewell, Jošt!

Jošt Lavrič, work group leader and ATTO scientific coordinator at MPI-BGC, has recently taken a new job and has left the institute. After 10 years of being part of the project, it was a bittersweet goodbye for him. While he will be dearly missed, we wish him all the best for his future endeavors and hope to cross paths again!



UPCOMING EVENTS

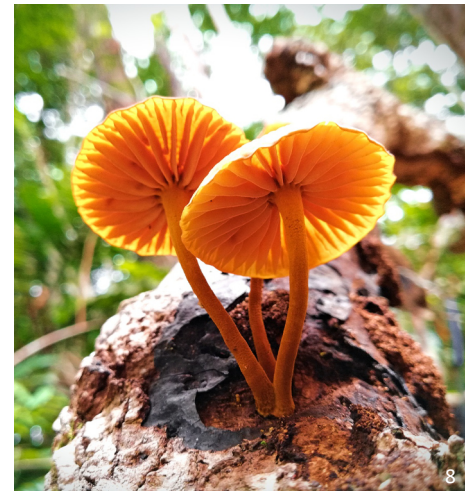


July 21-23 2021, online
ATBC 2021[†]
Registration now open.

August 23-27 2021, online
Eurosoil 2021[†]
Registration now open

August 30 - September 4 2021,
online
EAC 2021[†]
Registration opens June 30, 2021

ATTO Online Workshop
Dates in Sept/Oct to be announced



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Sebastian Brill / MPI-C

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ATTOproject.org



Social Media

