# AmeriFlux Annual Principal Investigators Meeting
# May 4–5, 2014, Bolger Center, Potomac MD

## Sunday, May 4, 2014 All Rooms are in The Osgood Building

| Time | Activity | Speaker/Leader | Room | Title |
|---|---|---|---|---|
| 16:00 | Registration | 2nd Floor, outside SGH, Room 200 (16:00-19:00pm) | | |
| 17:00 | Dinner | | Dining Room | |
| 19:00 | Welcome | ***Peter Curtis & David Hollinger*** | SGH | Orientation to the breakout sessions, including hand drawn posters |
| 19:15 | Breakouts | | | |
| | *World café* | ***Peter Curtis*** | 111 | Careers in Flux: Exploring Pathways & Tools for Success in "Fluxnet Science" |
| | *Discussion* | ***Sebastian Wolf & Dennis Baldocchi*** | 300 | Data synthesis: making the whole more than the sum of the parts |
| | *Discussion* | ***Jim Tang*** | 400 | Belowground processes and their linkage with aboveground eddy fluxes |

## Monday, May 5, 2014 All Rooms are in The Osgood Building

| Time | Activity | Speaker/Leader | Room | Title |
|---|---|---|---|---|
| 07:00 | Registration | 2nd Floor, outside SGH, Room 200 (7:00-9:00) | | |
| 0:700 | Breakfast | | | |
| | *Poster Mounting* | | *SGH* | *Mount posters any time before 16:00* |
| 08:00 | Welcome | ***Peter Curtis & David Hollinger*** | SGH | Orientation & Announcements |
| 08:05 | DOE welcome | ***Gary Geernaert*** | SGH | Climate and Environmental Sciences Division: Strategic Planning & Executing the Plan |
| 08:10 | DOE updates | ***Dan Stover & Mike Kuperberg*** | SGH | TES: Overview for AmeriFlux |
| 08:20 | Introduction | ***Margaret Torn*** | SGH | AmeriFlux Management Project Welcome |
| 08:35 | Invited talk | ***Dennis Baldocchi*** | SGH | Exhortation for more synthesis activities |
| 08:45 | Invited talk | ***Deborah Huntzinger*** | SGH | Using observational data to evaluate global terrestrial biospheric models: challenges and opportunities? |
| 09:20 | Coffee Break | | | |
| 09:40 | Presentations | ***Adrien Finzi*** | SGH | Utility and vision for coupling belowground carbon dynamics to eddy-covariance measurements of ecosystem $CO_2$ exchange with the atmosphere |

| Time | Activity | Speaker/Leader | Room | Title |
|---|---|---|---|---|
| | *Presentations (continued)* | ***Sebastian Wolf*** | SGH | Synthesis of the 2012 U.S. drought: impact on ecosystem fluxes and implications for the future |
| | | ***Fred Huemmrich*** | SGH | Using optical signals to determine carbon fluxes |
| | | ***Ankur Desai*** | SGH | How do we make AmeriFlux useful for ecosystem models? |
| | | ***Jingfeng Xiao*** | SGH | Assessing uncertainty of ecosystem models using AmeriFlux observations |
| 10:25 | Break and move | | | |
| 10:45 | Breakouts | | | |
| | *Discussion* | ***Ben Bond-Lamberty*** | 400 | Better ways to deal with and share data |
| | *Discussion* | ***Lianhong Gu & Bev Law*** | 111 | Extreme events, climate variability and ecosystem functions |
| | *Discussion* | ***Russ Scott*** | 300 | Eddy covariance practices and instrument-tation—new advances, insights, and preserving the utility of long-term flux records |
| 11:45 | Lunch | | *"To-go" lunch boxes available at the Dining Room* | |
| 12:30 | UAV demo I | ***Jonathan Dandois*** | field | |
| 13:00 | UAV demo II | ***Jonathan Dandois*** | 111 | |
| 13:40 | Invited talk | ***Scott Ollinger*** | SGH | A look at NEON from the inside out |
| 14:15 | Break and move | | | |
| 14:30 | Breakouts | | | |
| | *Discussion* | ***Margaret Torn*** | 400 | The Next Big Thing in carbon cycle science |
| | *Discussion* | ***Kim Novick*** | 300 | Site- and network-level priorities for the collection and synthesis of biometric data |
| | *Discussion* | ***Fred Huemmrich*** | 111 | Flux and optical sensing: emerging data products |
| 15:30 | Breakout reports | ***Dave Hollinger*** | SGH | |
| 16:10 | Poster session, vendors, and dinner | | SGH, Dining Room | |
| 18:00 | Working Dinner | | SGH | Featured speaker & panel on New Initiatives in Carbon Cycle Science |

# Careers in Flux

## Exploring pathways and tools for success in "fluxnet science"

**An Invitation to a World Café Conversation for Scientists at all Career Stages**
**Sunday, 7:15 pm, room 111**

Professional networks

Mid-career changes

Barriers & opportunities


Academia or industry?

Leadership transition

Setting the agenda


www.theworldcafe.com.

## …AND MORE EVENING BREAKOUTS!

### Data synthesis: making the whole more than the sum of the parts—led by Sebastian Wolf and Dennis Baldocchi
Room 300, Osgood Building

As the AmeriFlux Network grows and its duration extends in time, many topics are emerging that merit synthesis across sites. Past syntheses used short and less diverse datasets, and yet discovered new science on the roles of disturbance, land use change, albedo, phenology and length of growing season on carbon and water fluxes and the use of network data to validate and parameterize models and for spatial upscaling. This theme's discussion will be about projects that are ready for analysis/synthesis, like drought synthesis (ongoing) and sources of interannual variability and trends. We will solicit ideas of how to work together on the most important science projects achievable. And we will discuss how to take synthesis from ideas to execution.

### Belowground processes and their linkage with aboveground eddy fluxes—led by Jim Tang
Room 400, Osgood Building

Belowground soil carbon stocks, fluxes, and root activities play a major role in the overall carbon cycle of terrestrial ecosystems. Integrating eddy covariance with measurements of belowground carbon processes will yield substantial improvements to process-level representations of the carbon cycle in ecosystem and Earth system models and achieve AmeriFlux strategic goals that cannot be completed by eddy covariance fluxes alone. Important belowground carbon cycle parameters include bulk soil and fraction carbon stocks, soil respiration, litterfall and estimates of total belowground C flux (TBCF), root biomass and dynamics, bulk soil and fraction, radiocarbon measurements , microbial biomass and community composition, and other belowground parameters. Recognizing that the lack of community-accessible belowground carbon datasets for the majority of sites within AmeriFlux could hinder development of broader insights of the carbon cycle and its responses to future change, we call for assembling of existing belowground data and collection of new data across the AmeriFlux sites using coordinated protocols and instrumentation to facilitate cross-site modeling and synthesis for understanding complete ecosystem-level C budgets.

# List of Participants

P=Poster, S=Speaker, B=Breakout leader,O= Organizer, AMP=AmeriFlux Management Project team, Core=Associated with AmeriFlux Core Site Cluster

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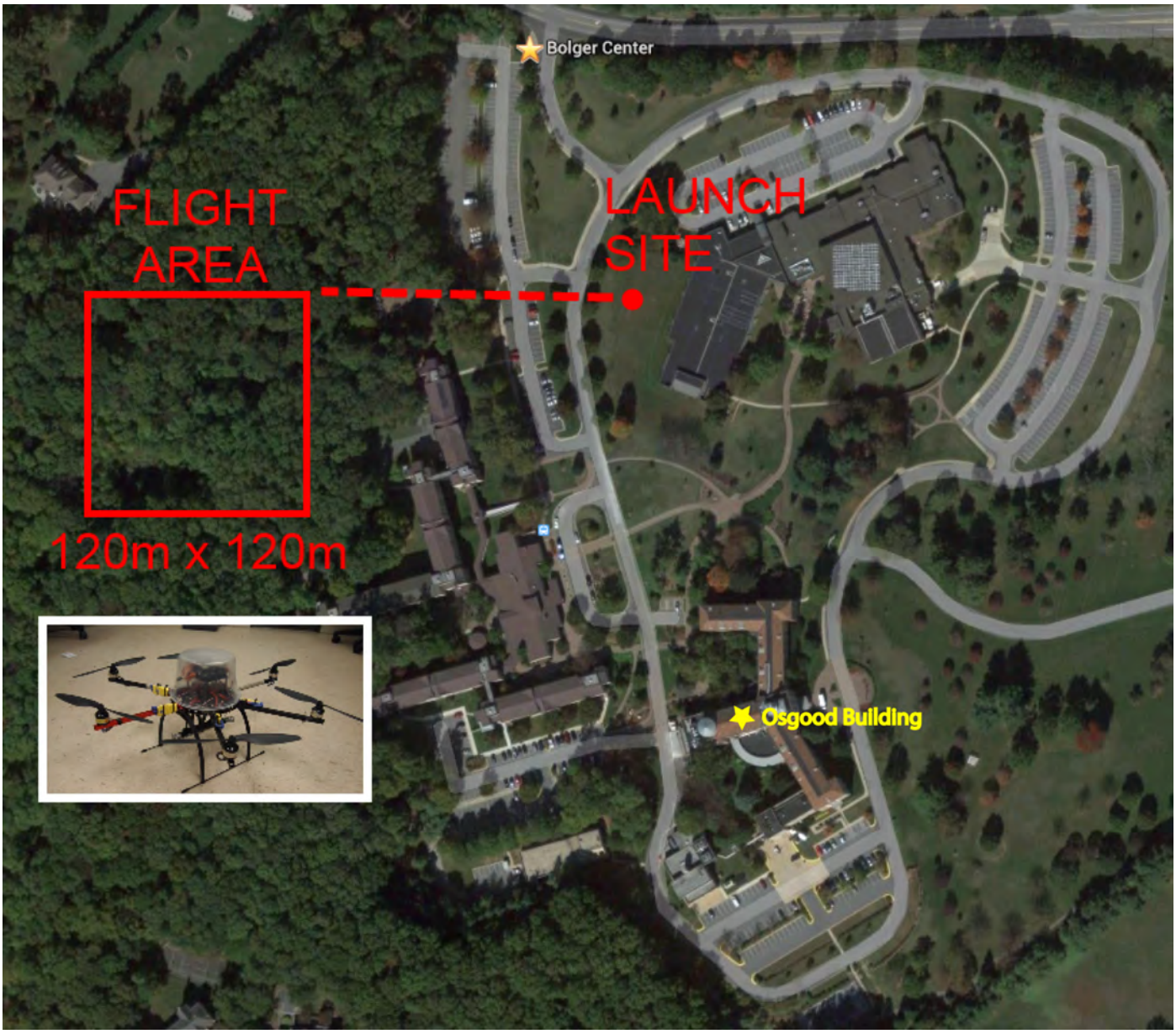
**Monday, May 5, 2014**

**UAV Demo at 12:30pm!**

Here's the map to the Demo. Should be about a 5-minute walk from the Osgood Building, where the meeting is.




Jonathan Dandois is providing a flight demonstration and discussion of the techniques and research that make up his dissertation on 3D-spectral remote sensing of vegetation using UAVs and computer vision. He is a PhD candidate at UMBC in Baltimore MD. In September he starts a post-doc with Helene Muller-Landau at the Smithsonian Tropical Research Institute in Panama to use this technology to track the phenology of tropical forest trees.