



Atmos Briefings



Notes from the Head

As advertised in the last Briefings, the DAS faculty spent their final Friday of winter break engaged in a strategic planning retreat. The venue was the Lake of the Woods Forest Preserve in Mahomet. Our wintery, woodsy setting was enhanced – thanks to the skills of Larry DiGirolamo – by a roaring fire in the Elk Pavilion’s oversized fireplace!

The purpose of the retreat, as you might have guessed, was to initiate the planning of the department’s next strategic plan. In breakout sessions and subsequent discussions, three teams of faculty members each considered three questions: (1) What are the new and emerging research themes that the department should be pursuing? (2) What actions are necessary to reach our undergraduate enrollment goals over the next five years? (3) What physical resources, infrastructure, or equipment would enhance your current and projected researching and teaching activities?

(By the way, the three teams were named cumulus, cirrus, and stratus. Which team do you suppose Jeff Frame immediately joined?)

We’ll be unveiling the outcome of these discussions over the coming months, but I am excited to say today that subseasonal-to-seasonal prediction, and Arctic/high-latitude meteorology, will be two research themes of future emphasis in DAS.

I left the Forest Preserve (and the post-retreat social activity) feeling immensely grateful for the collegiality of the DAS faculty. This feeling is in fact at the heart of a statement communicated to the new students accepted into our program: “The atmospheric sciences family will provide you with a supportive and engaging environment for your success.” Have a great month!

Publications

Marion, G. R., & Trapp, R. J. (2019). The dynamical coupling of convective updrafts, downdrafts, and cold pools in simulated supercell thunderstorms. *Journal of Geophysical Research: Atmospheres*, 124. <https://doi.org/10.1029/2018JD029055>

Miller, D.E. and Z. Wang, 2019: Assessing Seasonal Predictability Sources and Windows of High Predictability in the Climate Forecast System, Version 2. *J. Climate*, 32, 1307-1326, <https://doi.org/10.1175/JCLI-D-18-0389.1>

Singh, I., Dominguez, F., Demaria, E., & Walter, J. (2018). Extreme landfalling atmospheric river events in Arizona: Possible future changes. *Journal of Geophysical Research: Atmospheres*, 123, 7076–7097. <https://doi.org/10.1029/2017JD027866>

Presentations

Chang, Chuan-Chieh and Zhuo Wang, Multi-Year Prediction of Atlantic Tropical Cyclones, 2019 AMS Annual Meeting, Phoenix, 8 Jan. 2019.

Dominguez, F., Divyansh Chug, Zhao Yang, Land-Atmosphere Interactions over Southern South America and Their Links to Extreme Convective Systems, AMS Annual Meeting, Phoenix, AZ, 2019.

Hiscox, A., J. Wang, D. Kristovich, E. G. Patton, J. Sun, W. O. Brown, N. Sokol, A. R. Desai, G. W. Petty, and C. J. Nappo, SAVANT: A Field Campaign for the Stable Boundary Layer, Ninth Symposium on Lidar Atmospheric Applications, Phoenix, AZ, 7 Jan. 2019.

Miller, D.E. and Z. Wang, "Assessing Seasonal Predictability Sources and Windows of High Predictability in the Climate Fore-

Presentations Continued



cast System, Version 2", AMS Special Symposium on Catalyzing Innovation in Weather Science Internationally, Phoenix, Arizona, Jan. 2019.

Miller, D.E. and Z. Wang, "Skillful Seasonal Prediction of Winter Blocking and Extreme Temperature Frequency", AMS 32nd Conference on Climate Variability and Change, Phoenix, Arizona, Jan. 2019.

Mulholland, Jake, Stephen Nesbitt, Robert Trapp, "How Does Terrain Impact Upscale Convective Growth of Orographic Deep Moist Convection?", 99th AMS Annual Meeting, Phoenix, AZ, 7-11 Jan. 2019.

Nesbitt, S.W., RELAMPAGO, "Chasing the World's Most Intense Thunderstorms: Proyecto RELAMPAGO-CACTI Argentina 2018", Invited Plenary Speaker, 18th Annual AMS Student Conference, Phoenix, Arizona, 6 Jan. 2019.

Notaro, M., C. Cruz, E. M. Kemp, D. A. R. Kristovich, M. S. Kulie, C. D. Peters-Lidard, S. J. Vavrus, J. Wang, and Y. Zhong, Progress Toward the Development and Evaluation of a State-of-the-Art Nonhydrostatic Regional Climate Model for Studying Lake-Atmosphere Interactions: Focus on Simulating Lake-Effect Snowstorms in the Great Lakes Basin, Global and Regional-Scale Models: Updates and Center Overviews, Phoenix, AZ, 10 Jan. 2019.

Wuebbles, D.J., The Fourth National Climate Assessment: A Summary of the Science. University of Arizona webinar, 24 Jan. 2019.

Wuebbles, D.J., The Fourth National Climate Assessment: A Summary of the Science. University of Arizona webinar, 24 Jan. 2019.

Wuebbles, D.J., The Fourth National Climate Assessment: The Science and Other Findings. Seminar for UIUC Department of Atmospheric Sciences, Urbana, IL, 22 Jan. 2019

Wuebbles, D.J., The Fourth National Climate Assessment: Updating the Science of Climate Change. AMS Annual Meeting, Phoenix, AZ, 7 Jan. 2019.

Wuebbles, D.J., Why We Should All Care about Climate Change. Champaign Exchange Club, Champaign, IL, 14 Jan. 2019

Activities and Awards



David Kristovich and Erin Bauer received funding from the US Army Corps of Engineers in a project entitled "Maintenance and Upgrade of the Cook County Precipitation Network".

Francina Dominguez named Editor of the Journal of Hydrometeorology.

Holly Mallinson was a member of the AMS Student Conference Planning Committee which organized the 18th Annual Student Conference held January 5-6, 2019 in conjunction with the AMS 99th Annual Meeting.

Steve Nesbitt was selected to the PASA Precipitation Measurement Missions Science Team for 2019-2022.

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Photos from ATMOS Faculty Retreat



ATMOSPHERIC SCIENCES
School of Earth, Society, and Environment

Announcements



Upcoming Events

- ◆ SESE Review
Illini Union Ballroom
02.15.19
- ◆ February Seminars
 - ◆ 2.12 Xiaojuan Yang and Yang Song
 - ◆ 2.19 Steve Nesbitt
 - ◆ 2.26 Jessica Gasparik

Post-Doc Opportunity

Climate and Atmospheric Science Section, ISWS, Prairie Research Institute, University of Illinois. Conduct analyses of LiDAR, tower, sounding, and other field data. For more information see <https://blogs.uillinois.edu/view/7426/725918>.

RELAMPAGO

The RELAMPAGO Group concluded an 80-day operation of the Colorado State University C-Band radar in Argentina on Jan 31.

SESE Research Review

SESE Research Review will be Friday, February 15 from 2-5pm in the Illini Union Ballroom.

The SESE Research Review provides an opportunity for students and faculty to showcase their research in an informal setting. It includes poster presentations, and also select 5-minute "lightning talks." For more information, see: <https://www.uillinois.edu/research/research-review/>

Save the Date

Ogura Lecture, followed immediately by the Ogura Banquet, will be held on April 23, 2019

Call for Briefing Submissions

Remember to submit your publications, presentations, activities, and awards for the month of rest of February <https://forms.uillinois.edu/sec/6894949>