



*Notes from the Head*

Given the very recent involvement of DAS students and faculty in the Engineering Open House (EOH), I'd like to devote this month's *Notes from the Head* to outreach. The EOH is an example of highly concentrated outreach: it's a two-day event that draws 20,000 people of all ages to learn more about science and engineering. Atmospheric pressure, tornado formation, and the vertical structure of the troposphere via radiosonde observations are the typical atmospheric science concepts demonstrated during EOH. I'm very proud to say that, within DAS, these demonstrations and associated activities are planned and then executed by the students. This year, the student committee was led by Junior Marley Majetic, and included participation by Javier Villegas Bravo (who helped coordinate Viz Lab activities), Anna Dennis, Alex Escobar, Shayna Fever, Dongwei Fu, Brandon Garcia, Jasmine Lara, Eireann Neeson, Drew Reiser, David Roegner, Alli Whitfield, Victoria Wilson, Puja Roy, and Yizhe Zhan. Profs. Brian Jewett, Anna Nesbitt, Steve Nesbitt, and Nicole Riemer helped with the coordination; Nicole also provided some planning oversight during the year. Students: Planning for the EOH 2020 will begin relatively early in the Fall Semester. We hope you get involved!

DAS outreach is not limited to EOH, of course. Many of us interact regularly with members of the press, give talks at local schools and civic groups, and volunteer our time as science fair judges. Starting with next month's issue of the *Briefings*, we'll include a separate section for these and other outreach activities. Thanks for everything you do to help promote our science! Have a great Spring Break!

*Publications*

Carpenter, L.J., J.S. Daniel, E.L. Fleming, T. Hanaoka, J. Hu, A.R. Ravishankara, M.N. Ross, S. Tilmes, T.J. Wallington, and D. Wuebbles, 2018: Scenarios and Information for Policymakers. Chapter 6 in Scientific Assessment of Ozone Depletion: 2018, Global Ozone Research and Monitoring Project-Report No. 58, 588 pp., Geneva, Switzerland [released Feb., 2019].

Haupt, S.E., R.M. Rauber, B. Carmichael, J.C. Knievel, and J.L. Cogan, 2018: 100 Years of Progress in Applied Meteorology. Part I: Basic Applications. Meteorological Monographs, 59, 22.1–22.33, <https://doi.org/10.1175/AMSMONOGRAPHS-D-18-0004.1>

Hogan, E. E., and Sriver, R. L. (2019), Effect of internal variability on ocean temperature adjustment in a low-resolution CESM initial conditions ensemble, *Journal of Geophysical Research-Oceans*, <https://doi.org/10.1029/2018JC014535>

Hogan, E. E., Nicholas, R., Keller, K., Eilts, S., and Sriver, R. L. (2019), Representation of US warm temperature extremes in global climate model ensembles, *Journal of Climate*, <https://doi.org/10.1175/JCLI-D-18-0075.1>

Huang, A., Vega-Westhoff, B., and Sriver, R. L. (2019), Analyzing El Nino-Southern Oscillation predictability using long-short-term-memory models, *Earth and Space Science*, <https://doi.org/10.1029/2018EA000423>

Schraufnagel, D.E., J.R. Balmes, C. Cowl, S. De Matteis, L. Feldman, S.-H. Jung, K. Mortimer, R. Perez-Padilla, M. Rice, H. Riojas, A. Sood, G. Thurston, T. To, A. Vanker, and D. Wuebbles, 2019: Air Pollution and Non-Communicable Diseases: A review by the Forum of International Respiratory Societies' Environmental Committee, Part 2: Air pollution and organ systems. *CHEST Journal*, 155,417-426. <https://www.ncbi.nlm.nih.gov/pubmed/30419237>

Schraufnagel, D.E., J.R. Balmes, C. Cowl, S. De Matteis, L. Feldman, S.-H. Jung, K. Mortimer, R. Perez-Padilla, M. Rice, H. Riojas, A. Sood, G. Thurston, T. To, A. Vanker, and D. Wuebbles, 2019: Air Pollution and Non-Communicable Diseases: A review by the Forum of International Respiratory Societies' Environmental Committee, Part 1: The damaging effects of air pollution. *CHEST Journal*, 155, 409-416. <https://doi.org/10.1175/1551-2785.2019.155.409>

## *Publications Continued*

[doi.org/10.1016/j.chest.2018.10.042](https://doi.org/10.1016/j.chest.2018.10.042)

Tessendorf, S.A., J.R. French, K. Friedrich, B. Geerts, R.M. Rauber, R.M. Rasmussen, L. Xue, K. Ikeda, D.R. Blestrud, M.L. Kunkel, S. Parkinson, J.R. Snider, J. Aikins, S. Faber, A. Majewski, C. Grasmick, P.T. Bergmaier, A. Janiszkeski, A. Springer, C. Weeks, D.J. Serke, and R. Bruintjes, (2019): A Transformational Approach to Winter Orographic Weather Modification Research: The SNOWIE Project. *Bull. Amer. Meteor. Soc.*, 100, 71–92, <https://doi.org/10.1175/BAMS-D-17-0152.1>

Walker AP, et al. including Atul K Jain (2019), Decadal biomass increment in young woody ecosystems is increased by experimental CO<sub>2</sub>-enrichment indicating/demonstrating carbon limitation, *Nature Communications*, <https://doi.org/10.1038/s41467-019-08348-1>

## *Presentations*



Srifer, Ryan, “Climate change impacts and uncertainties”, UIUC Mathematics Department, Urbana, IL, 2 Feb 2019.

Wuebbles, D.J., The Fourth National Climate Assessment: The Science and the Midwest. Keynote presentation, Illinois Crop Management Conference, Champaign, IL, February 6, 2019.

Wuebbles, D.J., Assessing the Science of Climate Change. Session on the 4th national Climate Assessment, AAAS Annual Meeting, Washington DC, February 16, 2019.

## *Activities and Awards*



Daniel Harnos, Atmos Alum, was featured on the “Where Are They Now?” series on the Graduate College blog, which highlights Illinois graduate alumni and their career paths.

<https://blogs.illinois.edu/view/6397/747368>.

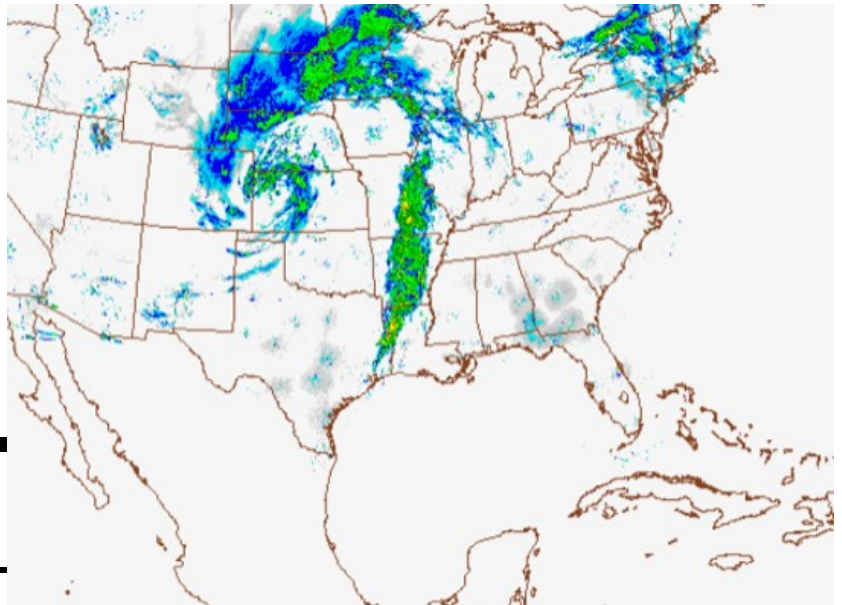
Don Wuebbles led a session at the AAAS Annual Meeting in Washington DC on February 16, 2019.

Don Wuebbles traveled with NCSA to Nicosia, Cyprus to develop new research with the Cyprus Institute from February 8-14, 2019

Don Wuebbles was featured in an UIUC news article entitled “Are global warming, recent Midwest cold snap related?” found here <https://news.illinois.edu/view/6367/750060>

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*NWS composite radar image for recent "bomb cyclone" and associated blizzard*

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**ATMOSPHERIC SCIENCES**  
School of Earth, Society, and Environment

## Announcements



### Upcoming Events

- ◆ Upcoming Seminars
  - ◆ 3.14 Emma Scott
  - ◆ 3.26 Shijie Shu
  - ◆ 4.02 Adam Springer
  - ◆ 4.04 Cameron Miller
  - ◆ 4.09 Jake Mulholland
  - ◆ 4.11 Jessica Gasparik
  - ◆ 4.16 Chris Thorncroft
  - ◆ 4.18 Amy Chen
  - ◆ 4.23 Ruby Leung
  - ◆ 4.26 Paula Crippa
  - ◆ 4.30 Liang Chen

### 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.illinois.edu/view/7426/725918>.

### AMS Abstract submission Deadline

AMS Mesoscale Conference (29 July- 1 August 2019) in Savannah, GA is approaching. Calling on all RELAMPAGO investigators to submit submissions.

Deadline to submit : March 25

<https://www.ametsoc.org/index.cfm/ams/meetings-events/ams-meetings/18th-conference-on-mesoscale-processes/>

### 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 March, beware of format change <https://forms.illinois.edu/sec/2391685>