Department of Atmospheric Sciences @ UIUC

April-May 2019 Volume 2, Issue 4





Notes from the Head

At the recent Ogura Banquet, Emeritus Professor Bob Wilhelmson spoke to us about his inspiring journey and experiences at the University of Illinois. A prominent theme of his talk was 'you never know where your career will take you.' I can relate: I've lived in five since high-school states graduation, but numerous unforeseen opportunities brought me back to my native Illinois. And to the 18 under-graduate and three graduate students who will formally complete your degrees at the end of the week: you will also discover this soon, if not already. Some of you will be back in school next fall as graduate students across the country, some of you will serve our country in the military, and some of you will join the work force in the government or private industry. We're extremely proud of each of you, and look forward to hearing about your journeys. And remember: keep an open mind when opportunities arise, because indeed, 'you never know.' Have a great summer!

Publications

Carroll-Smith, D. L., L. C. Dawson, and R. J. Trapp, 2019: Highresolution real-data WRF modeling and verification of tropical cyclone tornadoes associated with Hurricane Ivan (2004). Electronic J. Severe Storms Meteor., 14 (2), 1-36.

Chowdhury, S., S. Dey, L. Di Girolamo, K.R. Smith, A. Pillarisetti, and A. Lypapustin, (2019): Tracking ambient PM2.5 build-up in Delhi NCT during the dry season over 16 years using a high-resolution (1 km) satellite aerosol dataset. Atmos. Environ. 204, 142-150, <u>doi:10.1016/</u>j.atmosenv.2019.02.029.

Deville, L, N. Riemer, M. West (2019), Convergence of a generalized weighted flow algorithm for stochastic particle coagulation, J. Computational Dynamics, <u>DOI: 10.3934/jcd.2019003.</u>

Finlon, J. A., McFarquhar, G. M., Nesbitt, S. W., Rauber, R. M., Morrison, H., Wu, W., and Zhang, P., (2019), A novel approach for characterizing the variability in mass-dimension relationships: results from MC3E, Atmos. Chem. Phys., 19, 3621-3643, <u>https://doi.org/10.5194/acp-19-3621-2019</u>

Loveridge, J., & Davies, R. (2019). Cloud heterogeneity in the marine midlatitudes: Dependence on Large-Scale Meteorology and Implications for General Circulation models. Journal of Geophysical Research: Atmospheres, 124. <u>https://doi.org/10.1029/2018JD029826</u>

Pal S, Chang H-I, Castro CL and Dominguez F (2019) Credibility of Convection-Permitting Modeling to Improve Seasonal Precipitation Forecasting in the Southwestern United States. Front. Earth Sci. 7:11. <u>https://</u> <u>doi.org/10.3389/feart.2019.00011</u>

Riemer, N, A. P. Ault, R. L. Craig, J. H. Curtis, M. West (2019), Aerosol mixing state: Measurements, modeling, and impacts, Rev. Geophys., <u>https://doi.org/10.1029/2018RG000615</u>

Wuebbles, D. J., et al., An Assessment of the Impacts of Climate Change on the Great Lakes. Environmental Law and Policy Center, 70 pp., Available at <u>elpc.org/glclimatechange/</u>.

Xu X, AK Jain and KV Calvin (2019), Quantifying the Biophysical

Publications Continued

and Socioeconomic Drivers of Changes in Forest and Agricultural Land in South and Southeast Asia, Global Change Biology, <u>https://doi.org/10.1111/gcb.14611</u>

Presentations



Di Girolamo, L., et al., "CAMP2Ex radiation focus area overview", CAMP2Ex Science Team Meeting, , Pasadena, CA., 5-7 March 2019

Jain AK (2019): Greenhouse Gases budget Estimates for the South Asia Region, The Regional Carbon Cycle Assessment and Processes-2 (RECCAP2), Gotem-

ba, Shizuoka, Japan, 18-21 March 2019.

Kristovich, D., Buckle your Snowbelt: Challenging Field Studies to Understand Lake-effect Snowstorms, Invited seminar, Department of Earth and Atmospheric Sciences, Central Michigan University, Mt. Pleasant, MI, 11 April 2019.

Thayer, J. D.A. Hence, P. Garg and S.W. Nesbitt, 2019: Multiscale Atmospheric Conditions in the Evolution of Convective Organization during MJO-1 of DYNAMO/CINDY/AMIE. 13th International Conference on Mesoscale Convective Systems and High Impact Weather in East Asia, Naha, Okinawa, Japan, March 2019.

Trapp, J., "Storm Prediction, Projection, and Prognostication", Midwest Mutual Alliance Group Conference, St. Louis, MO, 24 April 2019

Wuebbles, D. J., seminar on climate change for Boeing Company leadership, Seattle, WA, 14 March 2019.

Wuebbles, D. J., Keynote talk on An Assessment of the impacts of Climate Change on the Great Lakes. 2019 Science-Policy Confluence Conference: Understanding and Addressing Climate Change Impacts on the Great Lakes. Chicago, IL, 28 March 2019.

Wuebbles, D. J., Climate Change: The Science, Why We Should Care, and What We All Can Do. Keynote presentation for the Home Performance Conference, Chicago, IL, 4 April 2019.

Wuebbles, D.J., The 4th National Climate Assessment: The Science. Presentation for Earth Week at University of Illinois, Springfield, 8 April 2019.

Wuebbles, D.J., Climate Change and Airport Infrastructure. Keynote presentation at the DOD Aviation Infrastructure Resilience Workshop, Washington DC, April 17-18, 2019.

Activities and Awards



Graduate Student Jake Mulholland received a National Research Council post-doctoral fellowship at the Naval Postgraduate School in Monterey, CA, with Dr. John M. Peters studying factors that impact upscale convective growth of deep moist convection.

Professor Atul Jain was invited participate at the first All-RECCAP2 workshop, (Regional Carbon Cycle Assessment and Processes-2), that took place in Gotemba (at the foothill of Mount Fuji), Japan during 18-21 March 2019. The main goal of this workshop was to assess the GHG budgets based on scientific evidence, considering uncertainties, understanding of drivers, and retrospective analysis of recent trends.

Professor Don Wuebbles co-organized the 2019 Science-Policy Confluence Conference: Understanding and Addressing Climate Change Impacts on the Great Lakes in Chicago on March 28-29, 2019.

Professor Don Wuebbles had a proposal funded by the Discovery Partners Institute at the University of Illinois.

Professor Don Wuebbles had proposals funded for development of an international workshop on the treatment of urban processes in earth system models by NOAA and DOD.

Professor Larry Di Girolamo, Bob Rauber, and graduate student Rose Miller participated in the CAMP2Ex Science Team Meeting, March 5-7, 2019, Pasadena, CA.

SESE Director Bob Rauber received the Campus Executive Officer Distinguished Leadership Award.

SESE Director Bob Rauber received a 5 year NASA grant to participate in IMPACTS, a study Northeast Winter cyclones, and attended the first IMPACTS science meeting at Wallops Island, VA.

SESE Director Bob Rauber conducted a program review of the Department of Atmospheric Sciences at the University of Wyoming.



Outreach Activities

Professor Jeff Frame was quoted in a BBC article about storm chasing and safety <u>https://www.bbc.com/news/world-us-canada-47720417</u>

Professor Donald Wuebbles was interviewed by the Associated

Outreach Activities Continued

Press, Chicago Tribune, Detroit Free Press, New York Times, The Toledo Blade, and the Daily Illini. He was also interviewed on the radio by NPR and another online radio program.

Job Opportunities

KMOT-TV in Minot, North Dakota currently has an opening at their station for a weather/news position, It is advertised as a Meteorologist / MMJ position, however there is consideration for people <u>solely</u> interested in weather.

https://my.peoplematter.com/mja/graytelevision/jobapp/GetStarted?jobOpenings=256ef789-7214-475c-ad80aa3000eccc6f&refererUrl=https://gray.tv/careers

Those who are interested can also contact me directly with their reel/resume at: Joe.skurzewski@kmot.com

WBOC-TV, an eastern seaboard powerhouse CBS/FOX affiliate, is looking for a fourth Meteorologist to increase our dominance. We have top-of-the-line Weather Central LIVE and ESP computer software, and access to three Dopplers. We have our own helicopter, TVU Jeep and Satellite truck. Did we mention that the beautiful ocean beaches are in our area? College degree in broadcast meteorology and experience as a television meteorologist preferred. AMS/NWA seals a plus.

If you desire a great lifestyle and have a strong work ethic please send resume, cover letter and DVD to:

WBOC-TV Attn: Human Resources 1729 N. Salisbury Blvd., Salisbury, MD 21801.

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Departmental participants in relay teams for the 2019 Illinois Marathon: Team Toon Squad (Holly, Joe, Kevin, and Jeff), Team Rossby Wave Train (Sarah, David, Carolina, and Javier), and Team Midlatitude Cyclones (Deanna, Nicole, and Jeff)



ATMOSPHERIC SCIENCES School of Earth, Society, and Environment

Announcements

Upcoming Events

- Blue Waters Symposium, Sun River, Oregon, 3-6 June 2019.
- SESE Summer Program for Zhejiang University, 28 July - 11 August
- AMS Conference on Mesoscale Processes, Savannah, GA, 29 July – 1 August 2019

Teachers Ranked Excellent by their students, Fall 2018

FRAME,J 303 GRAY,K TA 303 *JANISZESKI,A TA 100 LASHER -TRAPP,S 597 * MILLER,C TA 100 NESBITT,A 305 RIEMER,N 504 * SNODGRASS,E 120 SZYMBORSKI,S TA 302 TRAPP,R 597

* ZAREMBA,T TA 100

(see: <u>https://citl.illinois.edu/docs/default-</u> source/teachers-ranked-as-excellent/tre-2018fall.pdf)

* - The instructor ratings were outstanding.

Congratulations

Swarnali Sanyal and Jeffrey Curtis have both deposited dissertations for their degree. And congratulations to the rest of our graduating students.

Congratulations also to Prof. Jeff Frame, who has been promoted to Teaching Associate Professor.

Call for Briefing Submissions

Continue to submit your publications, presentations, activities, and awards for the month, beware of format changes <u>https://</u>forms.illinois.edu/sec/281495