

Vineel Yettella

Curriculum Vitae (updated Nov 2017)

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Department of Atmospheric and Oceanic Sciences (ATOC)
University of Colorado Boulder
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Education

Ph.D. Atmospheric and Oceanic Sciences, in progress 2015 - present
University of Colorado Boulder, Advisor: Jennifer Kay
Focus: Ensemble methods for quantifying the time of emergence of forced low frequency climate variability

M.S. Atmospheric and Oceanic Sciences 2013 - 2015
University of Colorado Boulder, Advisor: Jennifer Kay
Focus: Detection of forced changes in extratropical cyclone precipitation using a large ensemble of climate model simulations

B.Tech. (with Hons) Mechanical Engineering 2009 - 2013
Indian Institute of Technology Bhubaneswar, Advisor: S. Ayyalasomayajula
Thesis: Exploring the Lorenz equations using a chaotic water wheel

Peer-reviewed Publications

Yettella, V., J. B. Weiss, J. E. Kay, Pendergrass, A.G., 2017, (under review, manuscript available): An ensemble framework for quantifying forced climate variability and its time of emergence, *J. Climate*

Yettella, V., and J. E. Kay, 2016: How will precipitation change in extratropical cyclones as the planet warms? Insights from a large initial condition climate model ensemble. *Clim. Dyn.*, doi:10.1007/s00382-016-3410-2

Morrison A.L., J. E. Kay, H. Chepfer, R. Guzman, **V. Yettella**, in review, (2017, manuscript available): Isolating the liquid cloud response to recent Arctic sea ice variability using spaceborne lidar observations, *J. Geophys. Res. Atmos*

Kay, J. E., C. Wall, **V. Yettella**, B. Medeiros, C. Hannay, P. Caldwell, and C. Bitz, 2016: No access global climate impacts of fixing the Southern Ocean shortwave radiation bias in the Community Earth System Model (CESM). *J. Clim.*, 29, 4617–4636

Kay, J. E., L. Bourdages, N. B. Miller, A. Morrison, **V. Yettella**, H. Chepfer, and B. Eaton, 2016: Evaluating and improving cloud phase in the Community Atmosphere Model version 5 using spaceborne lidar observations. *J. Geophys. Res. Atmos.*, 121

Jena, S. K., **V. K. R. Yettella**, C. P. R. Sandeep, S. K. Mahapatra, and A. J. Chamkha, 2014: Three-dimensional Rayleigh-Bénard convection of molten gallium in a rotating cuboid under the influence of a vertical magnetic field. *Int. J. Heat Mass Transf.*, 78, doi:10.1016/j.ijheatmasstransfer.2014.06.036

Awards and fellowships

CIRES Graduate Research Award

Fall 2017 – Spring 2018

Scientific presentations

How do CMIP5 model biases in summer land temperature variability imprint on future projections? Advanced Climate Dynamics Courses, Rondvassbu, Norway, 10-22 September 2017. (**Talk**)

Yettella, V., J. B. Weiss, J. E. Kay, and Pendergrass, A. G., A decomposition of global variability into regional components and teleconnections, *American Meteorological Society 30th conference on Climate Variability and Change*, Baltimore, Maryland, July 29-29, 2017. (**Talk**)

Yeager, S., Haugen, M., Ma, P., **Yettella, V.**, Predicting Near-Term Shifts in the Likelihood of Climate Extremes, *STATMOS/SAMSI Workshop on Climate Statistics*, NCAR, Boulder, Colorado, July 21, 2017. (**Talk**)

Yettella, V., J. B. Weiss, J. E. Kay, and Pendergrass, A. G., A decomposition of global climate predictability and variability into regional components and teleconnections, *IMAGe Brown Bag Seminar*, NCAR, Boulder, Colorado, May 25, 2017. (**Invited Talk**)

Yettella, V., J. B. Weiss, J. E. Kay, and Pendergrass, A. G., A flexible decomposition of global climate predictability and variability into regional components and teleconnections, *CIRES Rendezvous*, Boulder, Colorado, May 18, 2017. (**Poster**)

Yettella, V., J. B. Weiss, J. E. Kay, and Pendergrass, A. G., A flexible decomposition of global climate predictability and variability into regional components and teleconnections, *Fall American Geophysical Union Meeting*, San Francisco, CA, December 13, 2016. (**Poster**)

Yettella, V., J. B. Weiss, J. E. Kay, and Pendergrass, A. G., A flexible decomposition of global climate predictability and variability into regional components and

teleconnections, *10th Annual Earth System and Space Science Poster Conference*, University of Colorado Boulder, December 2, 2016. (**Poster**)

Yettella, V., J. B. Weiss, J. E. Kay, and Pendergrass, A. G., A new measure of predictability and preliminary results from CESM large ensemble data, *21st Annual CESM Workshop*, Breckenridge, Colorado, June 21, 2016. (**Talk**)

Yettella, V., and J. E. Kay, Understanding extratropical cyclone precipitation change in a warmer climate, *CIRES Rendezvous*, Boulder, Colorado, May 13, 2016. (**Poster**)

Yettella, V., and J. E. Kay, How will precipitation in extratropical cyclones change as the climate warms? *Fall American Geophysical Union Meeting*, San Francisco, CA, December 14, 2015. (**Talk**)

DeWitt, P., Popuri, Sai K., Wang, M., **Yettella, V.**, Imputing remote sensed surface temperatures over Lake Victoria, *Second Annual Graduate Workshop on Environmental Data Analytics*, NCAR, Boulder, Colorado, July 31, 2015. (**Talk**)

Yettella, V., and J.E. Kay, How will precipitation change in extratropical cyclones as the planet warms? *20th Annual CESM Workshop*, Breckenridge, Colorado, June 16, 2015 (**Talk**)

Yettella, V., and J. E. Kay, How will precipitation change in extratropical cyclones as the planet warms? *CIRES Rendezvous*, Boulder, Colorado, May 1, 2015. (**Poster**)

Kay, J.E., **Yettella, V.**, Medeiros B, Gettelman A, The Global Influence of Southern Ocean Shortwave Radiation Biases, *Fall American Geophysical Union Meeting*, San Francisco, CA, December 15, 2014. (**Contributed Talk**)

Research Experience

Graduate research assistant, Ph.D. 2015 - present
Department of Atmospheric and Oceanic Sciences, University of Colorado Boulder
Advisor: Jennifer Kay

Graduate research assistant, M.S. 2013 - 2015
Department of Atmospheric and Oceanic Sciences, University of Colorado Boulder
Advisor: Jennifer Kay

Undergraduate Research Assistant 2012 - 2013
Department of Mechanical Engineering, Indian Institute of Technology Bhubaneswar
Advisor: Sathyanarayana Ayyalasomayajula

Undergraduate Research Assistant 2011 - 2012
Department of Mechanical Engineering, Indian Institute of Technology Bhubaneswar
Advisor: Swarup Mahapatra

Teaching Experience

Graduate Teaching Assistant 2013 - 2014
ATOC 1070 Weather and the Atmosphere Lab
Department of Atmospheric and Oceanic Sciences, University of Colorado Boulder
Average overall instructor rating: 5.5/6.0

Undergraduate Teaching Assistant 2011 - 2012
3D Computer-Aided Design
Department of Mechanical Engineering, Indian Institute of Technology Bhubaneswar

Work Experience

Student Engineering Intern Summer 2011
Sukhoi Engine Division, HAL, Koraput

Workshops Attended

- **Advanced Climate Dynamics Courses (ACDC)** “Dynamics of the seasonal cycle”, Rondvassbu, Norway, September 10 - 22, 2017
- **STATMOS/SAMSI workshop on climate statistics**, NCAR, Boulder, Colorado, July 17 - 21, 2017
- **Parallel Programming Workshop**, Research Computing, CU Boulder, Colorado, May 15 - 18, 2017
- **21st Annual CESM Workshop**, Breckenridge, Colorado, June 20 – 23, 2016
- **NCAR Command Language Workshop**, NCAR, Boulder, Colorado, February 9 - 12, 2016
- **Rocky Mountain Advanced Computing Consortium**, High Performance Computing Symposium, CU Boulder, Colorado, August 11 - 13, 2015
- **Second Annual Graduate Workshop on Environmental Data Analytics**, NCAR, Boulder, Colorado, July 27 - 31, 2015
- **20th Annual CESM Workshop**, Breckenridge, Colorado, June 15 - 18, 2015
- **19th Annual Community Earth System Model (CESM) Workshop**, Breckenridge, Colorado, June 16 - 19, 2014
- **Graduate Teacher Program, Fall Intensive**, CU Boulder, Colorado, August 21 - 23, 2013

Academic and Community Service

- Reviewer, Journal of Advances in Modeling Earth Systems, Journal of Geophysical Research: Atmospheres, Earth's Future
- Mentoring middle and high school teachers in the development of climate education and resiliency curricula, Denver Public Schools, via *CIRES Education and Outreach*, 2016 - present
- Member, ATOC weather lab development committee, 2013 – 2014

Professional Memberships

American Meteorological Society	2017 - present
American Geophysical Union	2015 - present
Society of Industrial and Applied Mathematics	2010 - present

Computing Skills

MATLAB, Python, R, NCL, Fortran
Formal instruction: Java, C