

Philippe P. Papin, Ph.D.

Naval Research Laboratory
Marine Meteorology Division | NRC Research Associate
7 Grace Hopper Avenue, Monterey, CA 93943

Curriculum Vitae

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EDUCATION

- Ph.D., Atmospheric Science** 2017
University at Albany, Albany, NY
Advisors: Lance F. Bosart and Ryan D. Torn
Ph.D. Committee Members:
Lance F. Bosart, Ryan D. Torn, Kristen Corbosiero, Chris Thorncroft, Ron McTaggart-Cowan
Dissertation: *Intensity Variations in Potential Vorticity Streamers: Development Pathways, and Environmental Impacts in the North Atlantic Basin*
- M.S., Atmospheric Science** 2014
University at Albany, Albany, NY
Advisors: Lance F. Bosart and Ryan D. Torn
Thesis: *A Climatology of Central American Gyres*
- B.S., Atmospheric Science; Minor in Mathematics – Magna Cum Laude** 2011
University of North Carolina: Asheville, Asheville, NC
Advisor: Chris Hennon
Research Project: *Using the Rossby Radius of Deformation as a Forecasting Tool for Tropical Cyclogenesis*

EMPLOYMENT

- NRC Research Associate** 2018-Present
Naval Research Laboratory, Monterey, CA
Advisor: Carolyn Reynolds
- Research and Teaching Assistant** 2011-2017
University at Albany, Albany, NY
Advisors: Lance F. Bosart and Ryan D. Torn
- GIS Spatial Analysis** 2009-2011
National Environmental Modeling and Analysis Center
University of North Carolina: Asheville, Asheville, NC
- Undergraduate Research Assistant** 2007-2011
University of North Carolina: Asheville, Asheville, NC
Advisor: Chris Hennon
- Teaching Assistant** Fall 2009
University of North Carolina: Asheville, Asheville, NC
Advisor: Chris Hennon

INTERNSHIP EXPERIENCE

Volunteer, Hydrometeorological Technician (HMT) Summer 2010
National Weather Service Forecasting Office, Greer, SC
Coordinator: Larry Lee, Science and Operations Officer
Performed day-to-day processes as a HMT. Assisted in making CWA's Long Term forecast and helped write, "Extended" GSP forecast discussion. Wrote "Nowcasts" sent directly to public. Verified SVR warnings issued in prior forecast cycle. Passed DLOC examination. Issued SVR warnings in a warning event simulator (WES).

DEPARTMENTAL SERVICE

Graduate Student Focus Group Member Spring 2012–2015
Provided feedback to the Dept. of Atmospheric and Environmental Sciences on the graduate student curriculum, research opportunities, teaching assistantship assignments, and student preparedness for employment.

Student Committee Member for Faculty Candidate Interviews Winter 2013, 2014
Interviewed candidates applying for faculty positions within the Dept. of Atmospheric and Environmental Sciences. Provided a written recommendation to the department after all interviews were conducted.

HONORS AND AWARDS

Outstanding Student Poster Award 2018
98th Annual AMS Meeting, Austin, TX

WxChallenge Trophy: 2nd Place Grad Student Overall for 2016-2017 Season 2017
University of Oklahoma, Norman, OK

Bernard Vonnegut Teaching Award 2016
University at Albany, Albany, NY

WxChallenge Trophy: 2nd Place Grad Student Forecaster in Grand Island, NE 2016
University of Oklahoma, Norman, OK

WxChallenge Trophy: 2016 Tournament Champion in Huntsville, AL 2016
University of Oklahoma, Norman, OK

WxChallenge Trophy: 3rd Place Overall for 2015-2016 Season 2016
University of Oklahoma, Norman, OK

WxChallenge Trophy: 1st Place Overall Forecaster in Beckley, WV 2016
University of Oklahoma, Norman, OK

WxChallenge Trophy: 2nd Place Grad Student Forecaster in Green Bay, WI 2015
University of Oklahoma, Norman, OK

Outstanding Student Paper Award 2014
AGU Fall Meeting: San Francisco, CA

Academic Excellence Award University of North Carolina: Asheville, Asheville, NC	2011
Research Excellence Award University of North Carolina: Asheville, Asheville, NC	2011
J. E. Serine Scholarship Award Greenville County Schools, Greenville, SC	2009
Watson-Brown Scholarship Watson Brown Foundation, Thomson, GA	2009
WxChallenge Trophy: 1st Place Undergrad Forecaster in Cincinnati, OH University of Oklahoma, Norman, OK	2009
WxChallenge Trophy: 1st Place Overall Forecaster in Minneapolis, MN University of Oklahoma, Norman, OK	2008

PROFESSIONAL SERVICE

Reviewer

- Journals: *Journal of Geophysical Research – Atmospheres*
- American Meteorology Society – *Journal of Climate*

Poster Judge

- 15th AMS Annual Student Conference; New Orleans, LA, January 2016
- 17th AMS Annual Student Conference; Austin ,TX, January 2018
- 33rd Conference on Hurricanes and Tropical Meteorology, Ponte Vedra, FL, April 2018

Memberships

- American Meteorological Society (2009–Present)
- American Geophysical Union (2012–Present)

REFERRED PUBLICATIONS

Papin, P., R. D. Torn, L. F. Bosart, 2017: A Climatology of Central American Gyres. *Mon. Wea. Rev.*, 145, 1983–2000. <http://journals.ametsoc.org/doi/pdf/10.1175/MWR-D-16-0411.1>

Hennon, C.C., **P.P. Papin**, C.M. Zarzar, and Co-Authors, 2013: Tropical Cloud Cluster Climatology, Variability, and Genesis Productivity. *J. Climate*. **26**, 3046–3066. <http://journals.ametsoc.org/doi/pdf/10.1175/JCLI-D-12-00387.1>

Papin, P., 2011: Using the Rossby Radius of Deformation as a Forecasting Tool for Tropical Cyclogenesis. *Proceedings to the 25th National Conference on Undergraduate Research*, Ithaca College, New York. http://www.atms.unca.edu/chennon/research/documents/papin_ncur2011_preprint.pdf

FIRST-AUTHOR CONFERENCE PRESENTATIONS

Papin, P.P., L. F. Bosart, R. D. Torn, 2018: The Relationship Between Potential Vorticity Streamer Activity and Tropical Cyclone Activity in the North Atlantic Basin. *33rd Conference on Hurricanes and Tropical Meteorology*, Ponte Vedra, FL, April 2018

Papin, P.P., L. F. Bosart, R. D. Torn, 2017: Intensity Variations of Subtropical Potential Vorticity Streamers: Impact on the Environment of the Subtropical Atlantic and Tropical Cyclone Activity. *Seminar at the National Hurricane Center*, Miami, FL, March 2017.

Papin, P.P., L. F. Bosart, R. D. Torn, 2017: Intensity Variations and Environmental Impact of Subtropical North Atlantic Basin PV Streamers. *29th Conference on Climate Variability and Change/97th AMS Annual Meeting*, Seattle, WA, January 2017.

Papin, P.P., R. D. Torn: An Analysis of Multiple Steering Influences on Tropical Cyclone Joaquin (2015). *32nd Conference on Conference on Hurricanes and Tropical Meteorology*, San Juan, PR, April 2016.

Papin, P.P.: A Climatology of Central American Gyres. *Seminar at the National Hurricane Center*, Miami, FL, March 2016

Papin, P.P., L. F. Bosart, R. D. Torn: The Antecedents of Subtropical PV Streamer Formation in the North Atlantic Basin. *28th Conference on Climate Variability and Change/96th AMS Annual Meeting*, New Orleans, LA, January 2016.

Papin, P.P., R. D. Torn, L. F. Bosart: The Antecedents of Rossby Wave Breaking and PV Streamer Formation in the Tropical Atlantic. *17th Cyclone Workshop*, Pacific Grove, CA, October 2015.

Papin, P.P., B. J. Moore, N. P. Bassill, R. D. Torn, L. F. Bosart: A Multi-Scale Investigation of the Historic Long Island Flash Flood on 13 August 2014. *27th Conference on Weather Analysis and Forecasting*, Chicago, IL, July 2015.

Papin, P.P., R. D. Torn, L. F. Bosart: Tropical Cyclone Stan's Interaction Within a Central American Gyre. *7th Northeast Tropical Workshop*, MIT Endicott House; Dedham, MA, June 2015.

Papin, P.P., B. J. Moore, N. P. Bassill, and Co-Authors: A Multi-Scale Investigation of the Historic Long Island Flash Flood on 13 August 2014. *40th Annual Northeastern Storm Conference*, Saratoga Springs, NY, March 2015.

Papin, P.P., R. D. Torn, L. F. Bosart: Tropical Cyclone Interactions Within Gyre Circulations in the Atlantic Basin. *10th International Conference for Mesoscale Meteorology and Tropical Cyclones*, Boulder, CO, September 2014.

Papin, P.P., R. D. Torn, L. F. Bosart: A Climatology of Central American Gyres. *1st World Weather Open Science Conference*, Montreal, QC, Canada, August 2014.

Papin, P.P.: A Climatology of Central American Gyres. *Master's thesis seminar*, University at Albany, Albany, NY, July 2014.

Papin, P.P.: A Climatology of Central American Gyres. *31st Conference on Hurricanes and Tropical Meteorology*, San Diego, CA, March 2014.

Papin, P.P., R. D. Torn, L. F. Bosart: A Climatology of Central American Gyres. *39th Northeastern Storm Conference*, Rutland, VT, March 2014.

Papin, P.P., R. D. Torn, L. F. Bosart: A Climatology of Central American Gyres. *26th Conference on Weather Analysis and Forecasting/94th AMS Annual Meeting*, Atlanta, GA, February 2014.

Papin, P.P., R. D. Torn, L. F. Bosart: A Climatology of Central American Gyres. *16th Cyclone Workshop*, Sainte-Adele, QC, Canada, September 2013.

Papin, P.P., R. D. Torn, L. F. Bosart: A Climatology of Central American Gyres. *6th Northeast Tropical Workshop*, Rensselaerville, NY, May 2013.

Papin, P.P., R. D. Torn, L. F. Bosart: A Climatology of Central American Gyres. *38th Northeastern Storm Conference*, Rutland, VT, March 2013.

Papin, P.P., C. C. Hennon: Using the Rossby Radius of Deformation as a Forecasting Tool for Tropical Cyclogenesis. *Spring 2011 Symposium on Undergraduate Research and Creativity*, University of North Carolina: Asheville, Asheville, NC, April 2011.

Papin, P.P., C. C. Hennon: Using the Rossby Radius of Deformation as a Forecasting Tool for Tropical Cyclogenesis. *25th National Conference for Undergraduate Research*, Ithaca College, Ithaca, NY, March–April 2011.

Papin, P.P., G. Satterwhite: Tips for Self-Forecasting Severe Weather & Severe Weather communication. *2010 UNCA Severe Weather Workshop*, University of North Carolina: Asheville, Asheville, NC, April 2010.

SELECT CO-AUTHOR CONFERENCE PRESENTATIONS

Bosart, L. F., **P.P. Papin**, A. M. Bentley, and T. Burg: TC Lionrock (2016) Touches All the Bases during Its Lifecycle: Monsoon Gyre, Tropical Transition, TC-TC interactions, a Predecessor Rain Event, and Extratropical Transition. *33rd Conference on Hurricanes and Tropical Meteorology*, Ponte Vedra, FL, April 2018.

Bosart, L. F., **P.P. Papin**, A. S. Levine, and A. M. Bentley: The Influence of a Precursor Central American Gyre and a Northerly Surge into the Gulf of Tehuantepec on the Formation of Hurricane Patricia in October 2015. *32nd Conference on Conference on Hurricanes and Tropical Meteorology*, San Juan, PR, April 2016.

Bosart, L. F., **P.P. Papin**, A. M. Bentley, and B. J. Moore: Large-Scale Antecedent Conditions Associated with 2014-2015 Winter Onset over North America and their Impact on Predictability. *28th Conference on Climate Variability and Change/96th AMS Annual Meeting*, New Orleans, LA, January 2016.

Moore, B. J., **P. P. Papin**, N. P. Bassill and Co-Authors: A Multiscale Analysis of Three Consecutive Flood-Producing Heavy Rainfall Events During August 2014. *16th Conference on Mesoscale Processes*, Boston, MA, August 2015.

Bosart, L. F., A. M. Bentley, and **P. P. Papin**: The Uber Jet and Widespread Destructive Ice Storm of 21–23 December 2013. *39th NWA Annual Meeting*, Salt Lake City, UT, October 2014.

Bosart, L. F., A. M. Bentley, **P. P. Papin**, and C. N. Helms: Hurricane Sandy (2012): Growth Through Multiple Trough Interactions. *10th International Conference for Mesoscale Meteorology and Tropical Cyclones*, Boulder, CO, September 2014.

Bosart, L. F., A. M. Bentley, C. N. Helms, and **P. P. Papin**: Hurricane Sandy (2012): A Multiscale Trough Interaction Perspective. *31st Conference on Hurricanes and Tropical Meteorology*, San Diego, CA, April 2014.

Bosart, L. F., A. M. Bentley, and **P. P. Papin**: The Uber Jet and Widespread Destructive Ice Storm of 21–23 December 2013. *39th Northeastern Storm Conference*, Rutland, VT, March 2014.

Bosart, L. F., K. S. Griffin, **P. P. Papin**, and R. D. Torn: Central American Gyres, Tropical Cyclones, and Heavy Eastern U.S. Rainfall, *2012 Fall Meeting, AGU*, San Francisco, CA, December 2012.

Bosart, L. F., K. S. Griffin, **P. P. Papin**: Central American Gyres, Tropical Cyclones, and Heavy Rainfall, *30th Conference on Hurricanes and Tropical Meteorology*, Jacksonville, FL, April 2012.

Hennon, C. C., **P.P. Papin**, C. M. Zarzar, and C. M. Helms: Tropical Cloud Cluster Variability and Genesis Productivity, *30th Conference on Hurricanes and Tropical Meteorology*, Jacksonville, FL, April 2012.

Hennon, C. C., **P.P. Papin**, C. M. Zarzar: Climatology of Tropical Cloud Clusters, *92nd American Meteorological Society Annual Meeting*, New Orleans, LA, January 2012.

FIRST-AUTHOR POSTER PRESENTATIONS

Papin, P.P., L. F. Bosart: Subtropical PV Streamer Variability and Impact in the Subtropical North Atlantic Basin. *32nd Conference on Hurricanes and Tropical Meteorology*, San Juan, PR, April 2016.

Papin, P.P., R. D. Torn, L. F. Bosart: Tropical Cyclone Interactions Within Gyre Circulations in the Atlantic Basin. *2014 Fall Meeting, AGU*, San Francisco, CA, December 2014.

Papin, P.P., K. S. Griffin, R. D. Torn, L. F. Bosart: A Climatology of Central American Gyres. *2012 Fall Meeting, AGU*, San Francisco, CA, December 2012.

Papin, P.P., K. S. Griffin, R. D. Torn, L. F. Bosart: An Analysis of Central American Gyres. *25th Conference on Weather Analysis and Forecasting*, Montreal, QC, Canada, May/June 2012.

Papin, P.P., K. S. Griffin, R. D. Torn, L. F. Bosart: An Analysis of Central American Gyres. *30th Conference on Hurricanes and Tropical Meteorology*, Jacksonville, FL, April 2012.

TECHINICAL SKILLS

Computer Languages: NCAR Command Language (NCL), Unix Shell Scripting, HTML 4/5, MATLAB, JavaScript, PHP, Python, GEMPAK
Storage: netCDF, GRIB1/2, binary, all text-based files (i.e., .csv, .txt)
Datasets: NCEP-CFS Reanalysis, ERA-Interim Reanalysis, NASA-MERRA reanalysis, NCEP-NCAR Reanalysis, GFS analyses, ECWMF analyses, HRRR analyses, IBTrACS, GridSat, NASA-Merged IR
Software: Microsoft Word, PowerPoint, Excel (Mac/Windows), GRLevel2, GRLevel3, GR2Analysis, AWIPS, GFE, NCview, WeatherLink, BUFKIT, etc.

REFERENCES

Dr. Lance F. Bosart (Ph.D. coadvisor)

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1400 Washington Avenue, Albany, NY 12222

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Phone: (518) 442-4564

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Dr. Ryan D. Torn (Ph.D. coadvisor)

Department of Atmospheric and Environmental Sciences, University at Albany, SUNY
1400 Washington Avenue, Albany, NY 12222

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