

# Ryan Truchelut

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## EDUCATION

- 2015 **Ph.D.**, Department of Earth, Ocean, and Atmospheric Science  
**Florida State University**, Tallahassee, FL  
Concentration: Meteorology  
Advisor: Robert E. Hart  
Dissertation: “Diagnosing Tropical Cyclone Risk through the Development of a Landfall Index for the North Atlantic Basin”
- 2011 **M.S.**, Department of Earth, Ocean, and Atmospheric Science  
**Florida State University**, Tallahassee, FL  
Concentration: Meteorology  
Advisor: Robert E. Hart  
Thesis: “Quantifying the Possible Existence of Undocumented Atlantic Warm-core Cyclones in NOAA/CIRES 20<sup>th</sup> Century Re-analysis Data”
- 2008 **B.S.**, *summa cum laude*, Department of Geosciences  
**Princeton University**, Princeton, NJ  
Advisor: Anand Gnanadesikan  
Thesis: “Upper-level Divergence as a Cyclogenesis Predictor”

## HONORS AND AWARDS

- 2021 Substack Featured Publication, September 2021 (weathertiger.substack.com)
- 2020 Grand Prize winner, Leon County Research and Development Authority  
Technology Commercialization Grant (“TechGrant”) competition
- 2016 Travel Fellowship Award, Climate Informatics Workshop
- 2013 First place, Seasonal Hurricane Landfall Forecast competition, Risk Prediction Initiative
- 2010 Group Achievement Award, Genesis and Rapid Intensification Processes research project, National Aeronautics and Space Administration (NASA)
- 2009 American Meteorological Society (AMS) Government Fellowship, NASA Earth Science Enterprise Office
- 2008 College Teaching Fellowship, Florida State University
- 2008 Peter W. Stroh Environmental Senior Thesis Prize, Princeton Environmental Institute
- 2008 Arthur F. Buddington Senior Award, Princeton Dept. of Geosciences
- 2007 Max Mayfield Endowed Scholarship in Weather Forecasting, AMS
- 2004 Presidential Scholar, United States Department of Education
- 2004 Male Scholar-Athlete of the Year, Florida High School Athletic Association

## **EMPLOYMENT**

- 2015- **Weather Tiger, LLC, Co-Founder, President, Chief Meteorologist**  
Provides full-service forecast guidance, climate research, and meteorological consulting for clients in industries including agricultural commodities markets, consumer products, media, finance, insurance, and law. Integrates comprehensive understanding of client needs, meteorological best practices, and the quantification of extreme event risk to develop and run WeatherTiger's proprietary predictive analytic forecasting technologies.
- Produces written and oral communication for a range of national and international media outlets, including hurricane expert analysis products distributed to millions of readers nationwide through an ongoing partnership with *USA Today*. Manages a hurricane information newsletter with over 4,000 active subscribers via Substack. Communicates research findings through publication in academic journals and presentations at international conferences.
- Performs forensic meteorological analysis and legal expert witness consulting for institutional clients throughout Florida and the United States, including multiple departments of the Florida state government with a focus on insurance claim assessment and hurricane and severe weather forensic meteorology. Experience with depositions and working for both plaintiffs and defense.
- 2005-2015 **International Agribusiness Group, Lead agricultural forecaster**  
Produced customized video and written forecast products at lead times ranging from days to months for clients with significant soft commodity exposure to optimize market positioning. Primary responsibilities included creating daily temperature and precipitation guidance for the major North American and European agricultural zones, and authoring original research pieces focused on extreme weather event and tropical cyclone risk.
- 2009-2015 **Florida State University, Dept. of Earth, Ocean, & Atmospheric Science, Graduate Research Assistant**  
Performed master's- and doctoral-level academic research studies in collaboration with faculty advisor Dr. Robert Hart. Projects involved the novel application of databases of past weather conditions to both improve the global historical record of tropical cyclones, as well to further the understanding of the causes and nature of risks posed by storms.

## **DEPOSITIONS AND TRIAL APPEARANCES IN LAST 12 MONTHS**

**Marilyn Dimayo vs. Lexington Insurance Company.** *Eleventh Judicial Circuit Court, Miami-Dade County, Florida.* Case involving wind damage caused by Hurricane Irma to structure in Miami-Dade County on September 9-12, 2017. Deposition taken March 21, 2023; trial scheduled for mid-April 2023.

## **SELECTED MEDIA APPEARANCES**

**Florida Weekly magazine, “Deciding Evacuations: Stay or Go?”** November 16, 2022 issue. *Provided expert context on meaning of NHC cone graphics and products.*

**ESG Talks: A KBRA podcast, “Quantifying Weather Risk with WeatherTiger,”** September 22, 2022. *Expert guest discussing potential climate-driven changes to North American hurricane landfall risks and U.S. agricultural production.*

**WAFB Coast and Climate podcast, “Discussing the 2022 hurricane season with Dr. Ryan Truchelut,”** September 8, 2022. *Discussing research findings on hurricane season length and outlook for 2022 tropical activity.*

**Wall Street Journal, “Atlantic Hurricane Seasons Are Starting Weeks Earlier, Raising Risks to Coastal Areas,”** August 16, 2022. *Feature article including interview regarding my 2022 paper on hurricane season length.*

**BNN Bloomberg, The Open with Amber Kanwar and Jon Erlichman,** 14 April 2022. *Expert guest analyzing the impact of weather on Canadian agriculture.*

**Florida Trend magazine, “The global reach of Florida innovators: Forecasting for farmers,”** September 2021 issue. *Feature interview about WeatherTiger.*

**Tallahassee Innovation and Technology magazine, “Risky business: Forecast bright for Tallahassee’s weather-related startups,”** May-June 2021 issue. *Feature interview and article about WeatherTiger’s business model.*

**General Motors Corporation, “GMC CarbonPro,”** filmed September 2019. *On-camera interview as hurricane expert for national advertisement campaign.*

**CNN, Early Start with Christine Romans & Dave Briggs,** 11 October 2018. *Expert guest analyzing the aftermath of Hurricane Michael.*

**BBC World News, Global with Matthew Amroliwala,** 10 October 2018. *Expert guest discussing forecast impacts for Hurricane Michael to a worldwide audience.*

**Australian Broadcast Corporation, ABC News Breakfast,** 10 October 2018. *Expert guest forecast for Hurricane Michael.*

**CNN, Early Start with Christine Romans & Dave Briggs,** 10 October 2018. *Expert guest performing live meteorological analysis and forecasting for Hurricane Michael’s expected impacts on Florida and the Southeastern U.S.*

**Jeopardy!,** 29 March 2013. *Contestant on the venerable quiz show.*

## **PUBLICATIONS**

### **Selected Popular Press (sole author unless otherwise noted)**

- “A blow by blow: A quiet conclusion to a punishing 2021 hurricane season,” 29 November 2021, *Yahoo! Money* and USA Today-Florida Network newspapers. Retrieved from: <https://money.yahoo.com/blow-blow-quiet-conclusion-punishing-110123280.html>
- “Does a dry May mean more hurricane landfalls? Maybe in S. Florida, but don't bet on it,” 4 June 2021. *USA Today* and USA Today-Florida Network newspapers. Retrieved from: <https://www.usatoday.com/story/news/2021/06/04/florida-hurricane-season-forecast-predicting-storm-landfalls-tough-weather/7521709002/>
- “Hurricane Sally landfall inches closer to Pensacola,” 15 September 2020. *Pensacola News-Journal* and other USA Today-Florida Network newspapers. Retrieved from: <https://www.pnj.com/story/news/2020/09/15/hurricane-sally-landfall-inches-closer-pensacola-tigerwatch/5807938002/>
- “The 2010s was a roller-coaster decade for hurricanes. Here's what it means for the future.” *USA Today*, 2 December 2019. Retrieved from: <https://www.usatoday.com/story/news/nation/2019/12/02/hurricanes-2010-recap-dorian-irma-looking-ahead-2020/2586653001/>
- “With increasing storms, Atlantic hurricane season needs to expand and begin on May 15.” *The Washington Post*, 29 November 2018. Retrieved from: <https://www.washingtonpost.com/weather/2018/11/29/with-increasing-storms-atlantic-hurricane-season-needs-expand-begin-may/>. Co-authored with E. M. Staehling.
- “Hurricane Michael historical forecasts from WeatherTiger.” A collection of forecast and analysis content originally published in the *Tallahassee Democrat* and elsewhere across the *USA Today Network*, 5-14 October 2018. Retrieved from: <http://content-static.tallahassee.com/projects/181104-hurricane-michael/forecasts.html>
- “With Harvey and Irma, America’s luckiest streak of low hurricane activity is over.” *The Washington Post*, 14 September 2017. Retrieved from <https://www.washingtonpost.com/news/capital-weather-gang/wp/2017/09/14/with-harvey-and-irma-americas-luckiest-ever-streak-of-low-hurricane-activity-is-over/>. Coauthored with E. M. Staehling.
- “Hurricane eclipse? Something new under the sun.” *USA Today*, 18 August 2017. Retrieved from <https://www.usatoday.com/story/weather/2017/08/18/hurricane-eclipse-something-new-under-sun/579047001/>.
- “Analysis: Hurricane season is growing longer.” *The Washington Post*, 29 November 2016. Retrieved from <https://www.washingtonpost.com/news/capital-weather-gang/wp/2016/11/29/analysis-atlantic-hurricane-season-is-growing-longer/>.

### **Refereed Journal Articles**

- Truchelut, R. E.**, Klotzbach, P. J., Staehling, E. M., Wood, K. M., Halperin, D. J., Shreck, C. J., and Blake, E. S. (2022). Earlier onset of North Atlantic hurricane season with warming oceans. *Nature Communications* **21** (3).
- Klotzbach, P. J., Wood, K. M., Bell, M. M., Blake, E. S., Bowen, S. G., Caron, L., Collins, J. M., Gibney, E. J., Schreck, C. J., III, and **Truchelut, R. E.** (2022). A Hyperactive End to the Atlantic Hurricane Season: October–November 2020. *Bulletin of the American Meteorological Society*, 1-57.
- Coauthors including **Truchelut, R.E.** (2020). State of the Climate 2019: The Tropics. *Bulletin of the American Meteorological Society*, S185–S238.
- Wood, K.M., Klotzbach, J.P., Collins, J.M, Caron, L.P, **Truchelut, R.E.**, and C.J. Schreck. (2020). Factors affecting the 2019 Atlantic hurricane season and the role of the Indian Ocean Dipole. *Geophysical Research Letters* 47 (13).
- Truchelut, R. E.**, & Staehling, E. M. (2017). An energetic perspective on United States tropical cyclone landfall droughts. *Geophysical Research Letters*, *44* (23), 12,013-12,019.
- Staehling, E. M., & **Truchelut, R. E.** (2016). Diagnosing United States hurricane landfall risk: An alternative to count-based methodologies. *Geophysical Research Letters*, *43* (16), 8798-8805.
- Truchelut, R. E.**, R. E. Hart, & B. Luthman (2013). Global identification of previously undetected pre-satellite era tropical cyclone candidates in NOAA/CIRES 20th Century Reanalysis data. *Journal of Applied Meteorology & Climatology*, *52*(10), 2243-2259.
- Truchelut, R. E.**, & R. E. Hart (2011). Quantifying the possible existence of undocumented Atlantic warm-core cyclones in NOAA/CIRES 20th Century Reanalysis data. *Geophysical Research Letters*, *38*(10), L08811.

### **Selected Refereed Conference Presentations**

- Truchelut, R. E.**, & Staehling, E. M. (2021, May). On the Potential Extension of the Official Atlantic Hurricane Season. *American Meteorological Society 34th Conference on Hurricanes and Tropical Meteorology*, online (talk).
- Truchelut, R. E.**, & Staehling, E. M. (2018, April). Energetic perspectives on United States tropical cyclone activity. *American Meteorological Society 33<sup>rd</sup> Conference on Hurricanes and Tropical Meteorology*, Ponte Vedra Beach, FL (talk).
- Staehling, E. M., & **Truchelut, R. E.** (2016, September). Quantifying tropical cyclone risk using Poisson modeling. Presented at the National Center for Atmospheric Research 6<sup>th</sup> *International Workshop on Climate Informatics*, Boulder, CO (poster and talk).

**Truchelut, R. E., & Staehling, E. M.** (2016, April). Diagnosing Tropical Cyclone Risk through the Development of a Landfall Index for the North Atlantic Basin. Presented at *American Meteorological Society 32<sup>nd</sup> Conference on Hurricanes and Tropical Meteorology*, San Juan, Puerto Rico (talk).

**Truchelut, R. E.** (2014, March). Predicting tropical cyclone landfall risk through genesis and steering climatology, American Meteorological Society, *31<sup>st</sup> Conference on Hurricanes and Tropical Meteorology*, San Diego, CA (talk).

**Truchelut, R. E.,** (2012, October). Global identification of previously undetected tropical cyclone candidate events in reanalysis model data, *Risk Prediction Initiative Research Update Workshop*, Hamilton, Bermuda (talk).

**Truchelut, R. E.,** and R. E. Hart, (2012, April). Global identification of previously undetected tropical cyclone candidates in NOAA/CIRES 20<sup>th</sup> Century Reanalysis data, American Meteorological Society, 30<sup>th</sup> Conference on Hurricanes & Tropical Meteorology, Ponte Vedra Beach, FL (talk).

**Truchelut, R. E.,** and R. E. Hart, (2011, June). Quantifying the possible existence of undocumented Atlantic warm-core cyclones in NOAA/CIRES 20<sup>th</sup> Century Reanalysis data, *3<sup>rd</sup> International Summit on Hurricanes and Climate Change*, Rhodes, Greece (talk).

**Truchelut, R. E.,** (2010, May). Reassessing pre-satellite era Atlantic tropical cyclone climatology using 20<sup>th</sup> Century Reanalysis data, American Meteorological Society, *29<sup>th</sup> Conference on Hurricanes and Tropical Meteorology*, Tucson, AZ (talk).

## **PUBLIC OUTREACH AND SERVICE**

- 2023 Men's Club at The Arlington of Naples invited speaker, Naples, FL.
- 2022 Leon Works invited speaker, Entrepreneur/Technology division, Leon County Public Schools, Tallahassee, FL.
- 2022 Invited panelist, Insider Engage/KBRA webinar, "Wildfire, Wind, and Rain: Insurers Bracing for Cat Season."
- 2022 Invited presentation, Rotary Club of Tallahassee, Tallahassee, FL.
- 2021 Leon Works invited speaker, Entrepreneur/Technology division, Leon County Public Schools, Tallahassee, FL.
- 2021 Invited TechTopics presenter, Leon County Research and Development Authority, Tallahassee, FL.
- 2020 Invited department seminar, Florida State University Department of Earth, Ocean, and Atmospheric Sciences. Tallahassee, FL.s
- 2020 Invited presentation, Financial Services Information Sharing and Analysis Center
- 2019 Invited presentation, Tallahassee Sunrise Rotary Club, Tallahassee, FL.
- 2019 Invited speech, Panhandle Tiger Bay Club, Pensacola, FL.
- 2018 Invited presentation, Thomasville Rotary Club, Thomasville, GA.

- 2018 Invited presentation, Princeton University Geosciences Students, Princeton University, Princeton, NJ.
- 2017-2017 Volunteer meteorological consultant, Oakland County (MI) Public Schools.  
Invited guest lecture, OCE 4008: Principles of Oceanography class, Florida State University, Tallahassee, FL.
- 2016-2014 Treasurer, University Lutheran Church, Tallahassee, FL  
Chair, Tropical Cyclone/Large Scale Interactions session, American Meteorological Society, *31<sup>st</sup> Conference on Hurricanes and Tropical Meteorology*, San Diego, CA.
- 2013-2015 Elder, University Lutheran Church, Tallahassee, FL
- 2013- Author and primary contact, The Tropical Cyclone Candidate Event Project webpage and dataset archive (<http://moe.met.fsu.edu/tcce>).
- 2012-2013 Research supervisor, Florida State University Young Scholars Program, Summer 2012 and 2013.
- 2011-2014 Judge, Capital Regional Science and Engineering Fair, Tallahassee, FL.
- 2010 Flight operations forecaster, NASA Genesis and Rapid Intensification Processes field research program, Ft. Lauderdale, FL.