

Robert Fulton Rogers

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SUMMARY:

Dr. Rogers is Lead Meteorologist of the Observations Team at NOAA's Hurricane Research Division in Miami, FL. His main areas of research involve studying the role of convective- and vortex-scale processes in tropical cyclone (TC) structure and intensity change, using a combination of aircraft observations and numerical models.

PROFESSIONAL PREPARATION:

The Pennsylvania State University	Meteorology	Ph.D., 1998
The Pennsylvania State University	Meteorology	M.S., 1995
University of Virginia	Environmental Sciences	B.A., 1991

APPOINTMENTS:

2017-current: Lead Meteorologist, NOAA/AOML Hurricane Research Division, Miami, FL

2003-2017: Meteorologist, NOAA/AOML Hurricane Research Division, Miami, FL

2000-2003: Assistant Scientist, Cooperative Institute for Marine and Atmospheric Studies, University of Miami, Miami, FL

1998-2000: National Research Council Postdoctoral Research Associate, Hurricane Research Division, Miami, FL

PUBLICATIONS:

1. **Rogers, R.F.** and J.A. Zhang, 2023: Aircraft Observations of Tropical Cyclone Boundary Layer Kinematic Structure and Evolution During Landfall. *Geophys. Res. Lett.*, Manuscript in preparation.
2. Fischer, M.S., **R.F. Rogers**, P.D. Reasor, J.P. Dunion, 2023: The Relationship between Tropical Cyclone Vortex Tilt, Precipitation Structure, and Intensity Change, *Mon. Wea. Rev.*, in review.
3. **Rogers, R.F.**, J. Courtney, and K. Wood, 2023: The World Meteorological Organization Tenth International Workshop on Tropical Cyclones (IWTC-10): A Summary. *Trop. Cyc. Res. Rev.*, in review.
4. Chen, X., C. Rozoff, **R.F. Rogers**, K. Corbosiero, D. Tao, J.-F. Gu, F. Judt, E. Hendricks, Y. Wang, M. Bell, D. Stern, K. Musgrave, J. Knaff, and J. Kaplan, 2023: Research Advances on Internal Processes Affecting Tropical Cyclone Intensity Change from 2018-2022. *Trop. Cyc. Res. Rev.*, in press.

5. Aberson, S.D., J.A. Zhang, J. Zawislak, K. Sellwood, **R.F. Rogers**, and J.J. Cione, 2023: The NCAR GPS Dropwindsonde and its Impact on Hurricane Operations and Research. *Bull. Amer. Met. Soc.*, in review.
6. Wadler, J.B., J.J. Cione, **R.F. Rogers**, and M.S. Fischer, 2023: On the Distribution of Convective and Stratiform Precipitation in Tropical Cyclones from Airborne Doppler Radar and its Relationship to Intensity Change and Environmental Wind Shear Direction. *Mon. Wea. Rev.* Manuscript in review.
7. Shimada, U., P.D. Reasor, **R.F. Rogers**, M. Fischer, F.D. Marks, Jr., J.A. Zawislak, and J.A. Zhang, 2023: Preference for Upshear-Left Convection at Upper Levels for Intensifying Hurricane-Strength Storms. Manuscript in review.
8. Stone, Z., G. Alvey, J.P. Dunion, M.S. Fischer, D. Raymond, **R.F. Rogers**, S. Sentic, and J. Zawislak, 2023: Thermodynamic contribution to vortex alignment and rapid intensification of Hurricane Sally (2020). *Mon. Wea. Rev.*, **151**, 931–951, <https://doi.org/10.1175/MWR-D-22-0201.1>.
9. Zhang, J.A. **R.F. Rogers**, P.D. Reasor, and J.F. Gamache, 2023: The Mean Kinematic Structure of the Tropical Cyclone Boundary Layer and Its Relationship to Intensity Change. *Mon. Wea. Rev.*, <https://doi.org/10.1175/MWR-D-21-0335.1>.
10. Ming, J., R. Liu, J.A. Zhang, and **R.F. Rogers**, 2022: The shear-relative variation of inflow angle and its relationship to tropical cyclone intensification. *J. Geophys. Res. – Atmos.*, **127**, <https://doi.org/10.1029/2022JD037280>.
11. Fischer, M.S., P.D. Reasor, **R.F. Rogers**, and J. Gamache, 2022: An Analysis of Tropical Cyclone Vortex and Convective Characteristics in Relation to Storm Intensity using a Novel Airborne Doppler Radar Database. *Mon. Wea. Rev.*, <https://doi.org/10.1029/2022JD037280>.
12. Wu, Y.-C., M.-J. Yang, and **R.F. Rogers**, 2022: Examining Terrain Effects on the Evolution of Precipitation and Vorticity of the Landfalling Tropical Cyclone Fanapi (2010) near Taiwan. *Mon. Wea. Rev.*, <https://journals.ametsoc.org/view/journals/mwre/aop/MWR-D-21-0205.1/MWR-D-21-0205.1.xml>.
13. Alvey, G.A., M.S. Fischer, P.D. Reasor, and **R.F. Rogers**, J.A. Zawislak, 2022: Observed Processes Underlying the Favorable Vortex Repositioning Early in the Development of Hurricane Dorian (2019). *Mon. Wea. Rev.*, **150**, 193-213.
14. Zawislak, J.A., **R.F. Rogers**, L. Bucci, J.P. Dunion, P.D. Reasor, S.D. Aberson, G. Alaka, G. Alvey, A. Aksoy, J. Cione, N. Dorst, M. Fischer, J. Gamache, S. Gopalakrishnan, A. Hazelton, H. Holbach, J. Kaplan, H. Leighton, F.D. Marks, Jr., S.T. Murillo, K. Ryan, K. Sellwood, J. Sippel, J.A. Zhang, 2022: Accomplishments of NOAA's Airborne Hurricane Field Program and a Broader Future Approach to Forecast Improvement. *Bull. Amer. Meteor. Soc.*, **103**, E311-E338, <https://journals.ametsoc.org/view/journals/bams/aop/BAMS-D-20-0174.1/BAMS-D-20-0174.1.xml>.
15. **Rogers, R.F.**, 2021: Recent advances in our understanding of tropical cyclone intensity change processes from airborne observations. *Atmosphere*. **12**(5), 650; <https://doi.org/10.3390/atmos12050650>.
16. Christophersen, H., B. Dahl, J.P. Dunion, **R.F. Rogers**, F.D. Marks, Jr., R. Atlas, and W. Blackwell, 2021: Impact of TROPICS Radiances on Tropical Cyclone Prediction in an

- OSSE. *Monthly Weather Review*, **149**, 2279–2298, <https://doi.org/10.1175/MWR-D-20-0339.1>.
17. Lin, I.-I., **R.F. Rogers**, H.-C. Huang, Y.-C. Liao, J.-Y. Yu, C. Patricola, J.A. Zhang, D. Herndon, Y.-T. Chang, I.-F. Pun, and C.-C. Lien, 2021: A Tale of Two Rapidly-Intensifying Supertyphoons: Hagibis (2019) and Haiyan (2013). *Bull. Amer. Meteor. Soc.*, **102(9)**, E1645–E1664, <https://doi.org/10.1175/BAMS-D-20-0223.1>.
 18. Chen, X., J.-F. Gu, J.A. Zhang, F.D. Marks, **R.F. Rogers**, and J. Cione, 2021: Boundary Layer Recovery and Precipitation Symmetrization Preceding Rapid Intensification of Tropical Cyclones under Shear. *J. Atmos. Sci.*, **78**, 1523–1544, <https://doi.org/10.1175/JAS-D-20-0252.1>.
 19. Wadler, J.B., J.A. Zhang, **R.F. Rogers**, B. Jaimes, and L.K. Shay, 2021: The Rapid Intensification of Hurricane Michael (2018): Storm Structure and the Relationship to Environmental and Air-Sea Interactions. *Mon. Wea. Rev.*, **149(1)**, 245–267, <https://doi.org/10.1175/MWR-D-20-0145.1>.
 20. Zhang, J.A., E.A. Kalina, M.K. Biswas, **R.F. Rogers**, P. Zhu, and F.D. Marks, Jr., 2020: A review and evaluation of planetary boundary layer parameterizations in HWRF using idealized simulations and observations. Special issue entitled Modeling and Data Assimilation for Tropical Cyclone Forecasts in *Atmosphere*, **11(10)**, 1091, <https://doi.org/10.3390/at>.
 21. **Rogers, R.F.**, P.D. Reasor, J.A. Zawislak, and L.T. Nguyen, 2020: Precipitation Processes and Vortex Alignment during the Intensification of a Weak Tropical Cyclone in Moderate Vertical Shear. *Mon. Wea. Rev.*, **148**, 1899–1929, <https://doi.org/10.1175/MWR-D-19-0315.1>
 22. Fischer, M.S., **R.F. Rogers**, and P.D. Reasor, 2020: The Rapid Intensification and Eyewall Replacement Cycles of Hurricane Irma (2017). *Mon. Wea. Rev.*, **148**, 981–1004, <https://doi.org/10.1175/MWR-D-19-0185.1>
 23. Nguyen, L.T., **R.F. Rogers**, J. Zawislak, and J.A. Zhang, 2019: Assessing the Influence of Convective Downdrafts and Surface Enthalpy Fluxes on Tropical Cyclone Intensity Change in Moderate Vertical Wind Shear. *Mon. Wea. Rev.*, **147**, 3519–3534, <https://doi.org/10.1175/MWR-D-18-0461.1>.
 24. Ahern, K., M.A. Bourassa, R.E. Hart, J.A. Zhang, and **R.F. Rogers**, 2019: Observed Kinematic and Thermodynamic Structure in the Hurricane Boundary Layer during Intensity Change. *Mon. Wea. Rev.*, **147**, 2765–2785, <https://doi.org/10.1175/MWR-D-18-0380.1>.
 25. Martinez, J., M.M. Bell, **R.F. Rogers**, and J.D. Doyle, 2019: Axisymmetric potential vorticity evolution of Hurricane Patricia (2015), *J. Atmos. Sci.*, **76**, 2043–2063, <https://doi.org/10.1175/JAS-D-18-0373.1>.
 26. Molinari, J., J.A. Zhang, **R.F. Rogers**, and D. Vollaro, 2019: Repeated Eyewall Replacement Cycles in Hurricane Frances (2004). *Mon. Wea. Rev.*, **147**, 2009–2022, <https://doi.org/10.1175/MWR-D-18-0345.1>.
 27. Zhang, J.A. and **R.F. Rogers**, 2019: Effects of parameterized boundary layer structure on hurricane rapid intensification in shear. *Mon. Wea. Rev.*, **147**, 853–871, <https://doi.org/10.1175/MWR-D-18-0010.1>.

28. Dougherty, E.M., J. Molinari, **R.F. Rogers**, J.A. Zhang, and J.P. Kossin, 2018: Hurricane Bonnie (1998): Maintaining Intensity during High Vertical Wind Shear and an Eyewall Replacement Cycle. *Mon. Wea. Rev.*, **146**, 3383–3399, <https://doi.org/10.1175/MWR-D-18-0030.1>
29. Blackwell, W.J., S. Braun, R. Bennartz, C. Velden, M. DeMaria, R. Atlas, B. Annane, J. Dunion, F. Marks, **R.F. Rogers**, 2018: An Overview of the TROPICS NASA Earth Venture Mission. *Quart. J. Roy. Met. Soc.*, **144 (Suppl. 1)**, 16-26.
30. Didlake, A.C., Paul D. Reasor, and **R.F. Rogers**, W.-C. Lee, 2018: Dynamics of the transition from spiral rainbands to a secondary eyewall in Hurricane Earl (2010). *J. Atmos. Sci.*, **75**, 2909–2929, <https://doi.org/10.1175/JAS-D-17-0348.1>.
31. **Rogers, R.F.**, K. Cheung, R. Elsberry, N. Kohn, M.-D. Leroux, and P. Otto, 2018: The World Meteorological Organization’s Fourth International Workshop on Tropical Cyclone Landfall Processes (IWTCLP-IV): A Summary. *Tropical Cyclone Research Review*, **7(2)**, 77-84.
32. Cheung, K., Z. Yu, M. Bell, H. Jiang, T.C. Lee, K.-C. Lu, Y. Oikawa, L. Qi, **R.F. Rogers**, K. Tsuboki, and R. Elsberry, 2018: Recent Advances in Research and Forecasting of Tropical Cyclone Rainfall. *Tropical Cyclone Research Review*, **7(2)**, 106-127.
33. Leroux, M.-D., K. Wood, R.L. Elsberry, E.O. Cayan, E. Hendricks, M. Kucas, P. Otto, **R.F. Rogers**, B. Sampson, and Z. Yu, 2018: Recent Advances in Research and Forecasting of Tropical Cyclone Track, Intensity, and Structure at Landfall. *Tropical Cyclone Research Review*, **7(2)**, 85-105.
34. Wadler, J., **R.F. Rogers**, and P.D. Reasor, 2018: The relationship between spatial variations in the structure of convective bursts and tropical cyclone intensification as determined by airborne Doppler radar. *Mon. Wea. Rev.*, **146**, 761–780. <https://doi.org/10.1175/MWR-D-17-0213.1>.
35. Zhang, J.A., F.D. Marks, J.A. Sippel, **R.F. Rogers**, X. Zhang, S.G. Gopalakrishnan, Z. Zhang, and V. Tallapragada, 2018: Evaluating the Impact of Improvement in the Horizontal Diffusion Parameterization on Hurricane Prediction in the Operational Hurricane Weather Research and Forecast (HWRF) Model. *Wea. Forecasting*, **33**, 317–329, <https://doi.org/10.1175/WAF-D-17-0097.1>
36. Leighton, H., S. Gopalakrishnan, J.A. Zhang, **R.F. Rogers**, Z. Zhang, and V. Tallapragada, 2018: Azimuthal Distribution of Deep Convection, Environmental Factors, and Tropical Cyclone Rapid Intensification: A Perspective from HWRF Ensemble Forecasts of Hurricane Edouard (2014). *J. Atmos. Sci.*, **75**, 275–295, <https://doi.org/10.1175/JAS-D-17-0171.1>
37. **Rogers, R.F.**, S. Aberson, M.M. Bell, D.J. Cecil, J.D. Doyle, T.B. Kimberlain, J. Morgerman, L.K. Shay, and C. Velden, 2017: Re-Writing the Tropical Record Books: The Extraordinary Intensification of Hurricane Patricia (2015). *Bull. Amer. Meteor. Soc.*, **98**, 2091–2112, <https://doi.org/10.1175/BAMS-D-16-0039.1>.
38. **Rogers, R.F.**, P.D. Reasor, and J.A. Zhang, 2017: Reply to Comments on “Multiscale Structure and Evolution of Hurricane Earl (2010) during Rapid Intensification”. *Mon. Wea. Rev.*, **145**, 1573–1575, <https://doi.org/10.1175/MWR-D-16-0414.1>.

39. Nguyen, L.T., **R.F. Rogers**, and P.D. Reasor, 2017: Thermodynamic and Kinematic Influences on Precipitation Symmetry in Sheared Tropical Cyclones: Bertha and Cristobal (2014). *Mon. Wea. Rev.*, **145**, 4423–4446, <https://doi.org/10.1175/MWR-D-17-0073.1>.
40. Doyle, J.D., J. Moskaitis, J. Feldmeier, R. Ferek, M. Beaubien, M. Bell, D. Cecil, R. Creasey, P. Duran, R. Elsberry, W. Komaromi, J. Molinari, D. Ryglicki, D. Stern, C. Velden, X. Wang, T. Allen, B. Barrett, P. Black, J. Dunion, K. Emanuel, P. Harr, L. Harrison, E. Hendricks, D. Herndon, W. Jeffries, S.J. Majumdar, J. Moore, Z. Pu, **R.F. Rogers**, E. Sanabia, G. Tripoli, and D. Zhang, 2017: A View of Tropical Cyclones from Above: The Tropical Cyclone Intensity (TCI) Experiment. *Bull. Amer. Meteor. Soc.*, **98**, 2113–2134, <https://doi.org/10.1175/BAMS-D-16-0055.1>.
41. Martinez, J., M.M. Bell, J.L. Vigh, and **R.F. Rogers**, 2017: Examining Tropical Cyclone Structure and Intensification with the FLIGHT+ Dataset from 1999 to 2012. *Mon. Wea. Rev.*, **145**, 4401–4421, <https://doi.org/10.1175/MWR-D-17-0011.1>.
42. Zhang, J.A., **R.F. Rogers**, and V. Tallapragada, 2017: Impact of Parameterized Boundary Layer Structure on Tropical Cyclone Rapid Intensification Forecasts in HWRF. *Mon. Wea. Rev.*, **145**, 1413–1426, doi: 10.1175/MWR-D-16-0129.1.
43. Hazelton, A.T., **R.F. Rogers**, and R.E. Hart, 2017: Analyzing simulated convective bursts in two Atlantic hurricanes. Part I: Convective burst formation and development. *Mon. Wea. Rev.*, **145**(8), 3073–3094, doi: 10.1175/MWR-D-16-0267.1.
44. Hazelton, A.T., R.E. Hart, and **R.F. Rogers**, 2017: Analyzing simulated convective bursts in two Atlantic hurricanes. Part II: Intensity change due to convective bursts. *Mon. Wea. Rev.*, **145**(8), 3095–3117, doi: 10.1175/MWR-D-16-0268.1.
45. **Rogers, R.F.**, J.A. Zhang, J. Zawislak, H. Jiang, G.R. Alvey III, E.J. Zipser, and S.N. Stevenson, 2016: Observations of the structure and evolution of Hurricane Edouard (2014) during intensity change. Part II: Kinematic structure and the distribution of deep convection. *Mon. Wea. Rev.*, **144**, 3355–3376.
46. Zawislak, J., H. Jiang, G.R. Alvey III, E.J. Zipser, **R.F. Rogers**, J.A. Zhang, and S.N. Stevenson, 2016: Observations of the structure and evolution of Hurricane Edouard (2014) during intensity change. Part I: Relationship between the thermodynamic structure and precipitation. *Mon. Wea. Rev.*, **144**, 3333–3354.
47. Zhang, J.A., D.S. Nolan, **R.F. Rogers**, and V. Tallapragada, 2015: Evaluating the Impact of Improvements in the Boundary Layer Parameterization on Hurricane Intensity and Structure Forecasts in HWRF. *Mon. Wea. Rev.*, **143**, 3136–3155.
48. Ming, J., J.A. Zhang, and **R.F. Rogers**, 2015: Typhoon boundary layer structure from dropsonde composites. *J. Geophys. Res.*, **120**(8):3158–3172, doi:10.1002/2014JD022640.
49. Susca-Lopata, G., J. Zawislak, E.J. Zipser, and **R.F. Rogers**, 2015: The role of observed environmental conditions and precipitation evolution in the rapid intensification of Hurricane Earl (2010). *Mon. Wea. Rev.*, **143**, 2207–2223.
50. Hazelton, A., **R.F. Rogers**, and R.Hart, 2015: Shear-Relative Asymmetries in Tropical Cyclone Eyewall Slope. *Mon. Wea. Rev.*, **143**, 883–903.
51. **Rogers, R.F.**, P.D. Reasor, and J.A. Zhang, 2015: Multiscale structure and evolution of Hurricane Earl (2010) during rapid intensification. *Mon. Wea. Rev.*, **143**, 536–562.
52. Ming, J., J. A. Zhang, **R.F. Rogers**, F. D. Marks, Y. Wang, and N. Cai, 2014: Multiplatform

- observations of boundary layer structure in the outer rainbands of landfalling typhoons. *J. Geophys. Res. – Atmos.*, **119**, 7799-7814, doi: 10.1002/2014JD021637.
53. DeHart, J.C., R.A. Houze, Jr., and **R.F. Rogers**, 2014: Quadrant distribution of tropical cyclone inner-core kinematics in relation to environmental shear. *J. Atmos. Sci.*, **71**, 2713-2732.
 54. Uhlhorn, E.W., B. Klotz, T. Vukicevic, P. Reasor, and **R.F. Rogers**, 2014: Observed hurricane wind speed asymmetries and relationships to motion and environmental shear. *Mon. Wea. Rev.*, **142**, 1290-1311.
 55. **Rogers, R.F.**, P. Reasor, and S. Lorsolo, 2013: Airborne Doppler Observations of the Inner-core Structural Differences between Intensifying and Steady-State Tropical Cyclones. *Mon. Wea. Rev.*, **141**, 2970-2991.
 56. **Rogers, R.F.**, S. Aberson, A. Aksoy, B. Annane, M. Black, J. Cione, N. Dorst, J. Dunion, J. Gamache, S. Goldenberg, S. Gopalakrishnan, J. Kaplan, B. Klotz, S. Lorsolo, F. Marks, S. Murillo, M. Powell, P. Reasor, K. Sellwood, E. Uhlhorn, T. Vukicevic, J. Zhang, and X. Zhang, 2013: NOAA'S Hurricane Intensity Forecasting Experiment: A Progress Report. *Bull. Amer. Meteor. Soc.*, **94**, 859-882.
 57. Reasor, P., **R.F. Rogers**, and S. Lorsolo, 2013: Environmental flow impacts on tropical cyclone structure diagnosed from airborne Doppler radar composites. *Mon. Wea. Rev.*, **141**, 2949-2969.
 58. Zhang, J. A., S. G. Gopalakrishnan, F. D. Marks, **R. F. Rogers**, and V. Tallapragada, 2013: A Developmental Framework for Improving Hurricane Model Physical Parameterizations Using Aircraft Observations. *Trop. Cycl. Res. Rev.*, **1(4)**, 419-429.
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 60. Zhang, J.A., **R.F. Rogers**, P. Reasor, E. Uhlhorn, and F.D. Marks, Jr., 2013: Asymmetric hurricane boundary layer structure from dropsonde composites in relation to the environmental wind shear. *Mon. Wea. Rev.*, **141**, 3968-3984.
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 65. **Rogers, R.F.**, 2010: Convective-scale structure and evolution during a high-resolution simulation of tropical cyclone rapid intensification. *Journal of the Atmospheric Sciences*, **67**, 44-70.
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- 35, L22811, doi:10.1029/2008GL034774.
68. **Rogers, R.F.**, M.L. Black, S.S. Chen, and R.A. Black, 2007: An Evaluation of Microphysics Fields from Mesoscale Model Simulations of Tropical Cyclones. Part I: Comparisons with Observations. *Journal of the Atmospheric Sciences*, **64**, 1811-1834.
 69. Lonfat, M., **R. F. Rogers**, F. D.Marks, Jr., and T. Marchok, 2007: A Parametric Model for Predicting Hurricane Rainfall. *Monthly Weather Review*, **135**, 3086-3097.
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 71. Halverson, J., M. Black, S. Braun, D. Cecil, M. Goodman, G. Heymsfield, R. Hood, J. Molinari, **R.F. Rogers**, C. Velden, E. Zipser, R. Kakar, 2007: NASA's Tropical Cloud Systems and Processes (TCSP) Experiment: Investigating the Genesis and Intensification of Hurricanes, *Bulletin of the American Meteorological Society*, **88**, 867-882.
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 80. **Rogers, R.F.**, and R.E. Davis, 1993: The effect of coastline curvature on the weakening of Atlantic tropical cyclones. *International Journal of Climatology*, **13**, 287-299.

81. Davis, R.E., and **R.F. Rogers**, 1992: A synoptic climatology of severe storms in Virginia. *The Professional Geographer*, **44**, 319-332.

BOOK AND ENCYCLOPEDIA CHAPTERS:

82. Joe, P., J. Sun, N. Yussouf, S. Goodman, M. Riemer, K. Gouda, B. Golding, **R.F. Rogers**, G. Isaac, J. Wilson, P. Li, V. Wulfmeyer, K. Elmore, J. Onvlee, P. Chong, J. LaDue, 2022: Predicting the Weather: A Partnership of Observation Scientists and Forecasters. Chapter in: Springer, Editors. Towards the 'perfect' weather warning: bridging disciplinary gaps through partnership and communication, in press.
83. **Rogers R.F.**, C.S. Velden, J.A. Zawislak, and J.A. Zhang, 2019: Tropical Cyclones and Hurricanes: Observations. Reference Module in Earth Systems and Environmental Sciences, Elsevier, 25 pp., <https://doi.org/10.1016/B978-0-12-409548-9.12065-2>.
84. **Rogers, R.F.**, F.D. Marks, Jr., and T. Marchok, 2009: Tropical Cyclone Rainfall. In Malcolm G. Anderson (Ed.) *Encyclopedia of Hydrological Sciences*. Chichester, UK: John Wiley & Sons, Ltd., <https://doi.org/10.1002/0470848944.hsa030>.

HONORS AND AWARDS:

Banner I. Miller Award, AMS award for outstanding contribution to the science of hurricane and tropical weather forecasting in a publication with international circulation, 2020

Selected to participate in NOAA Leadership Competencies Development Program, 2019-2021

Editors' Citation for Excellence in Refereeing for *JGR-Atmospheres*, 2016

South Florida Federal Employee of the Year – Scientific Category, South Florida Federal Executive Board, May 2011

NASA Group Achievement Award, HS3 Team, 2014

NOAA Employee of the Month, April 2011

NASA Group Achievement Award, GRIP Team, 2010

AMS Editor's Award, *Weather and Forecasting*, 2008

Department of Commerce Bronze Medal (HRD group award) for Hurricane Katrina, May 2007

NASA Group Achievement Award, TCSP Team, 2005

NASA Group Achievement Award, CAMEX-4 Team, 2001

AMS Father James B. MacElwane Award of Undergraduate Research, 1991.

Phi Beta Kappa National Honor Society

Phi Kappa Phi National Honor Society

Chi Epsilon Pi National Meteorology Honor Society

LEADERSHIP ACTIVITIES:

Science Director of Hurricane Research Division's Hurricane Field program, 2023

Chair, International Science Steering Committee, Asia-Pacific Typhoon Collaborative Research Center, 2023-present

Vice Chair, AMS Tropical Meteorology and Tropical Cyclone Scientific and Technological Activities Commission, 2023-present

Co-Chair, WMO 10th International Workshop on Tropical Cyclones (IWTC-X), Shanghai, China, December 2022

Co-Chair, AMS 35th Conference on Hurricane and Tropical Meteorology, New Orleans, LA, May 2022

Team Lead, HRD Observations Team, 2015-present

Director, Hurricane Research Division's Hurricane Field Program – 2005, 2010, 2015, 2016

Chair, International Science Steering Committee, Understanding and Prediction of Rainfall Associated with Landfalling Tropical cyclones (UPDRAFT), A proposal for a World Weather Research Program/WMO Research and Development Project, proposed by Key Laboratory of Mesoscale Severe Weather of Ministry of Education, Nanjing University, Chinese Academy of Meteorological Sciences, 2014-2020

Chair, Recommendations Committee for the Ninth World Meteorological Organization International Workshop on Tropical Cyclones (IWTC-IX), Honolulu, HI, December 2018.

Chair, Fourth World Meteorological Organization International Workshop on Tropical Cyclones – Landfall Processes (IWTC-LP IV), Macao, China, December 2017

Chair, Third World Meteorological Organization International Workshop on Tropical Cyclones – Landfall Processes (IWTC-LP III), Jeju, South Korea, December 2014

Chair, Expert Team on Landfall Processes, Tropical Meteorology Research Program, World Weather Research Program, World Meteorological Organization, 2011-2019

Topic Chair for Structure and Intensity Change session, Seventh World Meteorological Organization International Workshop on Tropical Cyclones (IWTC-VII), La Reunion, France, 2010

SYNERGISTIC ACTIVITIES:

Editor, *Journal of Geophysical Research – Atmospheres*, 2020-present.

Associate Editor, *Journal of Atmospheric Sciences*, 2022-present.

Vice Chair, Editorial Board, *Tropical Cyclone Research and Review*, 2016-present

Committee on Tropical Meteorology and Tropical Cyclones, Science and Technological Activities Commission, American Meteorological Society, 2020-present.

Program Committee, AMS 33rd Conference on Hurricanes and Tropical Meteorology, Ponte Vedra, FL, April 2018

Program Committee, AMS 32nd Conference on Hurricanes and Tropical Meteorology, San Juan, Puerto Rico, April 2016

Invited Speaker, International Top-level Forum on Rapid Change Phenomena in Tropical Cyclones, Haikou, China, 5-9 November 2012

Program Committee, AMS 30th Conference on Hurricanes and Tropical Meteorology, Ponte Vedra, FL, April 2012

Joint HRD/NHC Collaborative Hurricane Applications Requirements Team, 2011

Invited Speaker and Science Judge, Typhoon Morakot Workshop, Taipei, Taiwan, 2010

Invited Speaker, Second International Workshop on Tropical Cyclone Landfall Processes, Shanghai, China, 2009

NASA HS3 Science Team, 2010-present

NSF PREDICT Science Team, 2009-2010

NASA GRIP Science Team, 2009-2012

Interdepartmental Working Group for Tropical Cyclone Research, 2008-present

NASA Hurricane Science Research Program Science Team, 2008-present

Associate Editor, *Monthly Weather Review*, 2008-2013

NOAA-wide Service Assessment Team for Hurricanes Katrina and Rita, 2005

NASA Tropical Cloud Systems and Processes (TCSP) Science Team, 2005-2008

NSF Hurricane Rainband and Intensity Change Experiment (RAINEX) Science Team, 2005

Field Program Director for the Hurricane Research Division's Hurricane Field Program, July 1-September 30, 2005

Invited to attend NOAA Leadership Seminar, March 2005, in Warrenton, VA

Elected to serve as Adjunct Faculty in the Department of Meteorology and Physical Oceanography, University of Miami/RSMAS, September 2004.

Associate Editor, *Weather and Forecasting*, 2003-2013

Science Working Group for TEXMEX II Field Program (2003-4)

Committee for drafting NOAA Long-term Research Program Plan entitled "Solving the Hurricane Intensity and Inland Flood Forecast Problem", 2003

Max Eaton committee to determine best student presenter at 25th Conference on Hurricanes and Tropical Meteorology, San Diego (2002)

Visiting Research Scientist at Centre Nationale de la Recherche Scientifique, Toulouse, France (May-November, 2001)

NASA CAMEX-4 Science Team, 2001-2004

Frequent reviewer of journal articles submitted to JAS, MWR, WAF, JGR-Atmospheres, GRL, QJRMS, and proposals, including NSF and NASA

ACADEMIC COMMITTEES:

G. Alvey, Ph.D Committee, University of Utah, 2016-2019

Y. Dai, Ph.D Committee, University of Miami, RSMAS, 2016-2019

P. Finocchio, Ph.D Committee, University of Miami, RSMAS, 2014-2017

A. Hazelton, Ph.D Committee, Florida State University, 2014-2016

P. Sanchez, M.S. Committee, University of Miami, RSMAS, 2012-2013

Y. Moon, Ph.D Committee, University of Miami, RSMAS, 2009-2012

P. Ray, Ph.D Committee, University of Miami, RSMAS, 2003-2008

Y. Moon, M.S. Committee, University of Miami, RSMAS, 2006-2008

J. Cangialosi, M.S. Committee, University of Miami, RSMAS, 2003-2004

O. Nuissier, Ph. D Committee, Université Paul Sabatier, Toulouse, France, 2003