

# Christopher Philip Riedel

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CONTACT INFORMATION 2529 Dayflower Ln (785) 320-0385  
Norman, OK 73069 Christopher.P.Riedel-1@ou.edu

## EDUCATION **University of Oklahoma, Norman, OK**

PhD Meteorology, Expected Completion Date: December 2019

- Dissertation Title: Investigation of the impacts of Arctic tropopause-based vortices on downstream predictability using MPAS-DART

## **University of Oklahoma, Norman, OK**

M.S. Meteorology, May 2015

- Thesis Title: Improved Characterization And Prediction Of Antarctic Weather Through Ensemble Data Assimilation And Utilization Of The CONCORDIOSI Data Set

## **University of Oklahoma, Norman, OK**

B.S. Meteorology with distinction, May 2013

## **Ottawa University, Ottawa, KS**

B.A. Mathematics, May 2010

## TEACHING EXPERIENCE **University of Oklahoma, School of Meteorology**

Teaching Assistant	METR5002 Fundamentals of Atmospheric Science	Fall 2018
Teaching Assistant	METR5002 Fundamentals of Atmospheric Science	Fall 2016
Teaching Assistant	METR5002 Fundamentals of Atmospheric Science	Fall 2014
Teaching Assistant	METR1313 Programming for Meteorology	Spring 2014
Teaching Assistant	METR2011 Intro to Meteorology I Laboratory	Fall 2013
Teaching Assistant	METR2021 Intro to Meteorology II Laboratory	Spring 2013

PUBLICATIONS Parsons, D.B., M. Beland, D. Burridge, P. Bougeault, G. Brunet, J. Caughey, S.M. Cavallo, M. Charron, H.C. Davies, A.D. Niang, V. Ducrocq, P. Gauthier, T.M. Hamill, P.A. Harr, S.C. Jones, R.H. Langland, S.J. Majumdar, B.N. Mills, M. Moncrieff, T. Nakazawa, T. Paccagnella, F. Rabier, J. Redelsperger, C. Riedel, R.W. Saunders, M.A. Shapiro, R. Swinbank, I. Szunyogh, C. Thorncroft, A.J. Thorpe, X. Wang, D. Waliser, H. Wernli, and Z. Toth, 2017: THORPEX research and the science of prediction. *Bull. Amer. Meteor. Soc.*, 98, 807–830, doi.org/10.1175/BAMS-D-14-00025.1.

Smith, T.M., J. Gao, K.M. Calhoun, D.J. Stensrud, K.L. Manross, K.L. Ortega, C. Fu, D.M. Kingfield, K.L. Elmore, V. Lakshmanan, and C. Riedel, 2014: Examination of a real-time 3DVAR analysis system in the Hazardous Weather Testbed. *Wea. Forecasting*, 29, 63–77, doi:10.1175/WAF-D-13-00044.1.

PRESENTATIONS Riedel, C. P., Cavallo, S., 2018: *MPAS-DART Ensemble Data Assimilation System in Polar Regions*, 1st Annual Joint WRF and MPAS Users' Workshop, Boulder, CO,

National Center for Atmospheric Research, poster.

Riedel, C. P., Cavallo, S., 2017: *The Development of the MPAS-DART Ensemble Data Assimilation System for Polar to Lower-Latitude Predictability Studies*, 18th Cyclone Workshop , Montreal, Canada, Cyclone Workshop, talk.

Riedel, C. P., Cavallo, S., 2017: *Sensitivity of TPVs to a downstream forecast bust*, 28th Conference on Weather Analysis and Forecasting / 24th Conference on Numerical Weather Prediction, Seattle, WA, American Meteorological Society, poster.

Riedel, C. P., Cavallo, S., 2017: *Evaluation of a cycling mesoscale ensemble prediction system over the Antarctic region*, 14th Conference on Polar Meteorology and Oceanography, Seattle, WA, American Meteorological Society, talk.

Riedel, C. P., Cavallo, S., 2016: *Ensemble Data Assimilation in the Antarctic Mesoscale Prediction System (AMPS) over the Southern Hemisphere*, 2016 NJU-OU Symposium for Weather and Climate Research, Nanjing, People's Republic of China, Joint symposium between University of Oklahoma and Nanjing University, talk.

Riedel, C. P., Cavallo, S., 2016: *Evaluation of the Spread-Skill Relationship on a Busted Forecast using a MPAS Pseudo-Ensemble*, 17th Annual WRF Users' Workshop, Boulder, CO, National Center for Atmospheric Research, poster.

Riedel, C. P., Cavallo, S., 2015: *Sensitivities in Cyclone Forecasts for the Antarctic Region using an EnKF Method with the AMPS Model*, 17th Cyclone Workshop , Pacific Grove, CA, Cyclone Workshop, poster.

Riedel, C. P., Cavallo, S., 2015: *Atmospheric Analysis Uncertainties over the Antarctic Region using an EnKF Method with the AMPS Model*, International Symposium on Earth-Science Challenges, Norman, OK, Advanced Radar Research Center, talk.

Riedel, C. P., Cavallo, S., 2015: *Atmospheric Analysis Uncertainties over the Antarctic Region using an EnKF Method with the AMPS Model*, Conference On Weather Analysis And Forecasting/Conference On Numerical Weather Prediction, Chicago, IL, American Meteorological Society, talk.

Riedel, C. P., Cavallo, S., 2014: *Ensemble Data Assimilation over Antarctica and the Southern Ocean*, The World Weather Open Science Conference, Montreal, CA, World Meteorological Organization, talk.

TECHNICAL SKILLS Proficient: Shell-Scripting, Python, FORTRAN, Matlab, L<sup>A</sup>T<sub>E</sub>X, CM1 Numerical Model, The Weather Research and Forecasting Model (WRF), Model for Prediction Across Scales (MPAS), EnKF Software provided by The Data Assimilation Research Testbed (DART), high performance computing (NCAR–Cheyenne, OU–Schooner, SOM local cluster–Arctic)

AWARDS	<b>NCAR ASP Graduate Student Visitors Fellowship</b>	Summer 2018
	Mentor: Jeffery Anderson	
	<b>SOM Scholarship</b>	Fall 2012
	School of Meteorology scholarship for excellent classwork	

SERVICE	EMC NCGPS Ensemble Strategic Implementation Plan (SIP) Working Group	2017–present
	SOM Student Recruitment Committee Member	2014–present