TODD R. JONES, PDRA, UNIVERSITY OF READING, DEPARTMENT OF METEOROLOGY
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EDUCATION

Colorado State University
Ph.D., Atmospheric Science **2017**
Dissertation: "Examining chaotic convection with super-parameterization ensembles"

Colorado State University
M.S., Atmospheric Science **2010**
Thesis: "Quantifying the limits of convective parameterizations: A statistical characterization of simulated cumulus convection"

Ohio State University
B.S., Geography with honors and with distinction **2006**
Area of concentration: Atmospheric Science
Minor: Anthropology and Archaeology
Honors Thesis: "The annual cycle of monthly correlations between station mean air temperature and sunshine receipt over the United States"

AWARDS, HONORS, SCHOLARSHIPS AND FELLOWSHIPS

Rewarding Excellence Award, University of Reading **2018**
- For demonstrating the professional behaviour of Achieving Results

CIRA Fellowship **2010 – 2015**
Herbert Reihl Memorial Award **2011**

TEACHING EXPERIENCE

University of Reading
Demonstrator – MTMG50: Climate Services and Impact Modelling **2020**
Demonstrator – MT37J/MT49E: Boundary Layer Meteorology **2019**

Colorado State University
Graduate Teaching Assistant – Global Climate Change **2011**
Instructor – Weather and Climate for K-12 Teachers **2007-2009**
Graduate Teaching Assistant – Introduction to Weather and Climate **2008**

PROFESSIONAL EXPERIENCE AND TRAINING

PDRA for ParaCon Project **2017 – Present**
Researching the representation of atmospheric convection through numerical simulation. Duties include HPC model development and operation, experiment design, and data analysis for ParaCon and RCEMIP.

Member of MONC Management and Governance Board **2018 – Present**
Committee oversight of model development and administration.

Member of Met Office RMED Convection Working Group **2018 – Present**
Committee planning idealised modelling studies.

Max-Planck-Institut für Meteorologie
WCRP Summer School on Climate Model Development **2015**

National Center for Atmospheric Research
Dynamical Core Model Intercomparison Project **2012**

National Center for Atmospheric Research
Forecast Verification in the Atmospheric Sciences and Beyond **2010**

PUBLICATIONS AND PAPERS

K. N. Pope, C. E. Holloway, T. H. M. Stein, **T. R. Jones**, and M. Whitall, 2020: Interactions between radiation and convective organisation. In preparation for *J. Adv. Model. Earth Syst.*

T. R. Jones and C. E. Halliwell, 2020: A comparison of radiative convective equilibrium model convergence with resolution in MONC and the idealised UM. In preparation for *Q.J.R. Meteorol. Soc*.

A. A. Wing, C. L. Stauffer, T. Becker, K. A. Reed, M.-S. Ahn, N. Arnold, S. Bony, M. Branson, G. Bryan, J.-P. Chaboureau, S. de Roode, K. Gayatri, C. Hohenegger, I-K. Hu, F. Jansson, **T. R. Jones**, M. Khairoutdinov, D. Kim, S. Matsugishi, Z. Martin, B. Medeiros, H. Miura, Y. Moon, S. K. Mu ̈ller, T. Ohno, M. Popp, T.Prabhakaran, D. Randall, R. Rios-Berrios, N. Rochetin, R. Roehrig, D. M. Romps, J. H. Ruppert, Jr., M. Satoh, L. G. Silvers, M. S. Singh, B. Stevens, L. Tomassini, C. C. van Heerwaarden, S. Wang, M. Zhao, 2020: Clouds and convective self-aggregation in a multi-model ensemble of radiative-convective equilibrium simulations. Manuscript submitted to *J. Adv. Model. Earth Syst.*

Gu, J., R. S. Plant, C. E. Holloway, **T. R. Jones**, A. Stirling, P. A. Clark, S. J. Woolnough, and T. L. Webb, 2020: Evaluation of the bulk mass flux formulation using large eddy simulations. *J. Atmos. Sci.,* **Accepted**, https://doi.org/10.1175/JAS-D-19-0224.1

Jones, T. R., Randall, D. A., and Branson, M., 2019: Multiple-Instance superparameterization: 1. Concept, and predictability of precipitation. *J. Adv. Model. Earth Syst.*, 11, 3497– 3520. https://doi.org/10.1029/2019MS001610

Jones, T. R., Randall, D. A., and Branson, M. D., 2019: Multiple-instance superparameterization: 2. The effects of stochastic convection on the simulated climate. *J. Adv. Model. Earth Syst.*, 11, 3521– 3544. https://doi.org/10.1029/2019MS001611

Fridlind, A. M., A. S. Ackerman, J.-P. Charboureau, J. Fan, W. W. Grabowski, A. A. Hill, **T. R. Jones**, M. M. Khaiyer, G. Liu, P. Minnis, H. Morrison, L. Nguyen, S. Park, J. C. Petch, J.-P. Pinty, C. Schumacher, B.J. Shipway, A. C. Varble, S. Xie, M. Zhang, 2012: A comparison of TWP-ICE observational data with could-resolving model results. *J. Geophys. Res.*, 117, D05204, doi:10.1029/2011JD016595.

Randall, D. and **T. Jones**, 2011: The limits of convection parameterization. Workshop on Representing Model Uncertainty and Error in Numerical Weather and Climate Prediction Models, 20-24 June 2011. Shinfield Park, Reading, UK, ECMWF, 271–278.

Jones, T. R. and D. A. Randall, 2011: Quantifying the limits of convective parameterizations. *J. Geophys. Res.*, 116, D08210, doi:10.1029/2010JD014913.

RECENT PRESENTATIONS

RCE Update: A Comparison of RCE in MONC and the UM, 8th ParaCon Plenary **Dec 2019**
Radiative-Convective Equilibrium Across the Gray Zone, CPPC **July 2019**
Multiple-Instance Superparameterization and the Predictability of Precipitation, Predictability Group Meeting, University of Oxford **June 2019**