KEVIN GRADY

Curriculum vitae

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Lafayette, IN 47905
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RESEARCH INTERESTS

- Using low-order models to investigate problems of atmospheric convection and fluid dynamics, such as Rayleigh-Bénard convection
- The structure and mathematical properties of low-order models
- Convective patterns of mesoscale shallow convection
- Convection driven by internal heating

EDUCATION

2017 - Ph.D., in Atmospheric Science, Purdue University, West Lafayette, IN
Advisor: Alexander Gluhovsky
Dissertation title: *Efficient nonlinear low-order models for atmospheric and climate dynamics*

2015 - Graduate Certificate, in Applied Statistics, Purdue University, West Lafayette, IN

2012 - B.S., in Mathematics, Minor in Theology, *Summa cum laude*, University of Notre Dame, Notre Dame, IN

PUBLICATIONS

Grady, K. and A. Gluhovsky, 2018: Exploring atmospheric convection with physically sound nonlinear low-order models. *Commun Nonlinear Sci Numer Simulat*, **60**, 128-136.

Gluhovsky, A. and **K. Grady**, 2016: Effective low-order models for atmospheric dynamics and time-series analysis. *Chaos*, **26**, 023119, doi:10.1063/1.4942586.

CONFERENCE POSTERS AND PAPERS

Grady, K. and A. Gluhovsky, 2014: Efficient nonlinear low-order models in atmospheric dynamics. *American Geophysical Union Fall Meeting*, AGU, San Francisco, CA, Dec. 15-19, 2014.

Westcott, N.E. and **K. Grady**, 2010: Evaluation impacts of the 1954 heat wave. *Preprint, 18th Conference on Applied Meteorology*, Amer. Meteorol. Soc., Atlanta, GA, Jan. 18-21, 2010, 7p.

SEMINARS AND INVITED TALKS

"Efficient nonlinear low-order models for atmospheric and climate dynamics." Ph.D. Departmental Seminar - March 2017

"Effective low-order models for atmospheric and climate dynamics." Special Seminar, University of Notre Dame - April 2016

"Kevin Grady autobiographical talk." Math Autobiographical Lectures Series, University of Notre Dame - April 2016

PROJECTS & PROFESSIONAL EXPERIENCE

Research Assistant, Department of Earth, Atmospheric, and Planetary Sciences, Purdue University, West Lafayette, IN - 2012 - 2017

Quality Controller, Midwestern Regional Climate Center, Illinois State Water Survey, University of Illinois at Urbana-Champaign, Champaign, IL - Summer 2011, 2010

Research Assistant, Midwestern Regional Climate Center, Illinois State Water Survey, University of Illinois at Urbana-Champaign, Champaign, IL - Summer 2009

TEACHING EXPERIENCE

Teaching Assistant, EAPS 327: *Climate, Science, and Society*, Purdue University - Fall 2016

Teaching Assistant, EAPS 320: *Physics of Climate*, Purdue University - Spring 2016

Teaching Assistant, EAPS 327: *Climate, Science, and Society*, Purdue University - Fall 2015

Teaching Assistant, EAPS 106: *Geosciences in the Cinema*, Purdue University - Spring 2015

Grader, University of Notre Dame
MATH 30650: *Differential Equations* - Spring 2012
MATH 30750: *Real Analysis* - Fall 2011, 2010, Spring 2011

AWARDS

Outstanding Graduate Student in the Atmospheric Sciences - Purdue University, Department of Earth, Atmospheric, and Planetary Sciences - April 2016

Robert P. Balles Notre Dame Mathematics Scholar - University of Notre Dame, Department of Mathematics - August 2011

PROFESSIONAL MEMBERSHIPS

Society for Industrial and Applied Mathematics

American Geophysical Union