CURRICULUM VITAE RYAN REED GROVE

CONTACT INFORMATION

Address Department of Mathematical Sciences

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CITIZENSHIP United States of America

EDUCATION

Degree Ph.D. in Mathematical Sciences

Dissertation: N/A Overall QPA: 3.69 May 2017 (Expected) Clemson University Clemson, SC

Degree M.S. in Applied Mathematics

Thesis: Immersed Boundary modeling of journal bearings in a viscoelastic fluid.

Overall QPA: 3.83

 $\mathrm{May}\ 2013$

Indiana University of Pennsylvania

Indiana, PA

Degree B.S. in Applied Mathematics, B.S. in Physics

Minor in Computer Science

May 2012

Overall QPA: 3.95

Indiana University of Pennsylvania

Indiana, PA

RESEARCH INTERESTS

Geometric Multi-grid, Finite Element Method, Navier-Stokes equations, Parallelization, Mantle Convection Simulation, deal.II, Parallel Linear Algebra

Learned Programming Languages/Software Packages

MATHEMATICS deal.ii, Matlab, Mathematica, Maple, Sage, R, Girobi, Lingo, Lindo, LaTeX

GENERAL C, C++, Python, HTML, Fortran, Java, SQL, Visual Basic

Physics LabVIEW

GEOSCIENCE ASPECT

Version GIT, Subversion

Control

Contributed Talks

(* = received travel support)

TITLE Graduate Student Seminar

LOCATION Clemson University, Clemson, SC

Date September 23, 2013

TALK TITLE How to Get a Summer Internship

TITLE Graduate Student Seminar

LOCATION Clemson University, Clemson, SC

Date August 26, 2013

TALK TITLE An Introduction to Graduate School

TITLE *The 9th Annual UNCG Regional Mathematics and Statistics Conference

LOCATION The University of North Carolina at Greensboro, Greensboro, NC

Date November 2, 2013

Talk Title Immersed Boundary Modeling of Journal Bearings in a Viscoelastic Fluid

TITLE Graduate Student Seminar

LOCATION Clemson University, Clemson, SC

Date October 30, 2013

TALK TITLE Immersed Boundary Modeling of Journal Bearings in a Viscoelastic Fluid

TITLE *Pennsylvania State System of Higher Education Mathematics Association

LOCATION Clarion University, Clarion, PA

Date April 17-18, 2013

Talk Title Immersed Boundary Modeling of Journal Bearings in a Viscoelastic Fluid

TITLE *Allegheny Mountain Section of the Mathematical Association of America

Spring 2013 meeting

LOCATION Indiana University of Pennsylvania, Indiana, PA

Date April 5-6, 2013

TALK TITLE Immersed Boundary Modeling of Journal Bearings in a Viscoelastic Fluid

TITLE Computational Mathematics Seminar

LOCATION Clemson University, Clemson, SC

Date October 30, 2014

Talk Title Comparison of Nonlinear and Linear Stabilization Schemes for Advection-

Diffusion Equations

TITLE *The 10th Annual UNCG Regional Mathematics and Statistics Conference

LOCATION The University of North Carolina at Greensboro, Greensboro, NC

Date November 1, 2014

Talk Title Comparison of Nonlinear and Linear Stabilization Schemes for Advection-

Diffusion Equations

TITLE Graduate Student Seminar

LOCATION Clemson University, Clemson, SC

Date November 5, 2014

Talk Title Comparison of Nonlinear and Linear Stabilization Schemes for Advection-

Diffusion Equations

TITLE Fall Southeastern Sectional Meeting of the American Mathematical Society

LOCATION The University of North Carolina at Greensboro, Greensboro, NC

Date November 8-9, 2014

Talk Title Comparison of Nonlinear and Linear Stabilization Schemes for Advection-

Diffusion Equations

POSTER PRESENTATION

(* = received travel support)

TITLE *2015 SIAM Conference on Computational Science and Engineering

LOCATION The Calvin L. Rampton Salt Palance Convention Center

Salt Lake City, UT

Date March 14-18, 2015

POSTER TITLE Comparison of Nonlinear and Linear Stabilization Schemes for Advection-

Diffusion Equations

PANELS

(* = received travel support)

TITLE AWM's Summer Opportunities Panel

LOCATION E-4 Martin Hall

Clemson, SC

Date October 20, 2015

TITLE *Alumni Panel

LOCATION STRGT 226/229

Indiana, PA

Date October 12, 2015

Conferences Attended with no presentation

(* = received travel support)

TITLE *2014 SIAM Student Conference

LOCATION West Virginia University

Blacksburg, WV

Date March, 2014

KEY COURSES

Introduction to Scientific Computing

Data Structures

Stochastic Processes

Stochastic Models

Mathematical Programming

Finite Element Method

Finite Element Method in Scientific Computing

Network Flow Programming

Linear Analysis

Matrix Analysis

Probability

Analysis for Applied Mathematics

Complex Analysis

Ordinary and Partial Differential Equations

Applied Regressional Analysis and Design of Experiments

Modeling and Simulation

Advanced Simulation

Applied Statistical Methods

Deterministic Models in Operations Research

Stochastic Models in Operations Research

Linear Algebra

Mathematical Statistics

Advanced Mathematics for Applications

Theoretical Physics

Electricity and Magnetism

Nuclear Physics

Mechanics

Thermal and Statistical Physics

Optics

Electronics

Quantum Mechanics

Modern Physics

SERVICE

Description SIAM Webmaster

Date Fall 2014 - Present

Description GSG Senator

Date Fall 2015 - Present

DESCRIPTION GSG Finacial Committee

 ${\tt Date} \quad {\tt Fall} \ \ 2015 \ {\tt -Present}$

WORKSHOPS GIVEN

PROGRAM Personal Webpage Workshop

DATE April 15, 2015
INSTITUTION Clemson University
LOCATION Clemson, SC

Comment Conducted a workshop to help graduate students start up their own personal

webpage

Workshops Attended

PROGRAM ASPECT Hackathon

Date May 20-30, 2015

Institution UC Davis Location ?, CA

PROGRAM ASPECT Hackathon

DATE May 14-23, 2014 INSTITUTION Texas A&M University

LOCATION College Station, TX

INTERNSHIPS

JOB TITLE Member of the Technical Staff

LOCATION The Aerospace Corporation, Chantilly, VA

Date June 1, 2015 to August 14, 2015

DESCRIPTION Developer and analyst of multiple software packages including: GRIPS, ViCE,

and UNCOLA.

WORK EXPERIENCE

JOB TITLE Graduate Teacher of Record LOCATION Clemson University, Clemson, SC

Date August 26, 2015 to present

DESCRIPTION Teach MATH 1060 (Calculus of One Variable I).

JOB TITLE Member of the Technical Staff

LOCATION The Aerospace Corporation, Chantilly, VA

Date June 1, 2015 to present

DESCRIPTION Create a test suite for the Genetic Resources for Innovation and Problem Solving

(GRIPS) program.

Job Title Research Assistant

LOCATION Clemson University, Clemson, SC DATE August 30, 2013 to May 1, 2015

Description Simulate problems in thermal convection using ASPECT

JOB TITLE Teaching Assistant

LOCATION Clemson University, Clemson, SC

Date August 21, 2013 to December 13, 2013

Description Calculus II teaching assistant

JOB TITLE Sub aide

LOCATION Cambria Residential Services, Richland, PA

Date June 4, 2012 to May 31, 2013

DESCRIPTION Cook, clean, and transport individuals with mental health disabilities

Job Title Web Analyst, Research Assistant

LOCATION Indiana University of Pennsylvania, Indiana, PA

DATE September 7, 2012 to December 14, 2012

DESCRIPTION Prepare and interpret multiple web traffic reports for the IUP Communications

Department

Job Title Teaching Assistant

LOCATION Indiana University of Pennsylvania, Indiana, PA

Date February 4, 2013 to May 13, 2013

DESCRIPTION Tutor at the IUP branch campuses located in Punxsutawney and Northpointe,

Pennsylvania

VOLUNTEER WORK

Job Title Volunteer Assistant

LOCATION Cambria Residential Services, Richland, PA

Date 08/2006 - 06/2012

DESCRIPTION Take individuals with mental health disabilities into the community on outings

Job Title Volunteer Firefighter

LOCATION Portage Area Fire Department, Portage, PA

DATE July 10, 2012 to May 31, 2013

DESCRIPTION Respond to emergency calls such as QRS, fire, and hazardous materials calls

Job Title Volunteer Tutor

LOCATION Indiana University of Pennsylvania, Indiana, PA

Date 08/2009 - present

DESCRIPTION Tutor for calculus, differential equations, physics, and statistics

Honors and Awards

HONORS SOCIETY Sigma Alpha Lambda Honor Fraternity

Indiana University of Pennsylvania

Fall 2009 - Spring 2012

HONORS SOCIETY Phi Kappa Phi Honor Fraternity

Indiana University of Pennsylvania

Fall 2010 - Spring 2011

AWARD Deans List

Indiana University of Pennsylvania

Fall 2008 - Spring 2012

SCHOLARSHIP S-COAM

Indiana University of Pennsylvania Academic years 2009 – 2013

GROUPS

TITLE SIAM (Society for Industrial and Applied Mathematics)

Time of 08/2013 - present

Membership

TITLE AWM (Association for Women in Mathematics)

Time of 10/2015 - present

Membership