

# CURRICULUM VITAE

## RYAN REED GROVE

### CONTACT INFORMATION

---

ADDRESS Department of Mathematical Sciences  
M-306 Martin Hall  
Clemson University  
Clemson, SC 29634

EMAIL [rrgrove6@gmail.com](mailto:rrgrove6@gmail.com)

WEB PAGE <http://people.clemson.edu/~rgrove/>

CITIZENSHIP United States of America

### EDUCATION

---

DEGREE Ph.D. in Mathematical Sciences  
Dissertation: *N/A*  
Overall QPA: 3.85  
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  
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

---

Finite Elements, 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++, Java, SQL, Python, HTML, Visual Basic

PHYSICS	LabVIEW
GEOSCIENCE	ASPECT
VERSION	GIT, Subversion
CONTROL	

## CONTRIBUTED TALKS

---

(\* = received travel support)

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 1718, 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 56, 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 Palace Convention Center Salt Lake City, UT
DATE	March 14-18, 2015
POSTER TITLE	Comparison of Nonlinear and Linear Stabilization Schemes for Advection-Diffusion Equations

## 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 Regression 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

## WORKSHOPS ATTENDED

---

PROGRAM ASPECT Hackathon  
DATE May 14-23, 2014  
INSTITUTION Texas A&M University  
LOCATION College Station, TX

## WORK EXPERIENCE

---

JOB TITLE Research Assistant  
LOCATION Clemson University, Clemson, SC  
DATE August 30, 2013 to present  
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
-------------	--