

CURRICULUM VITAE

Dr. Jacob W. Chapman
Southern Wesleyan University
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Professional Preparation

Ph.D. (Applied Mathematics) - Minor: Mechanical Engineering	University of Alabama at Birmingham	Aug. 2013
M.S. (Mathematics)	University of Alabama at Birmingham	May 2010
B.S. (Mathematics) - Minor: Mechanical Engineering	University of Alabama at Birmingham	Aug. 2008

Professional Positions

Assistant Professor of Mathematics	Southern Wesleyan University	Aug. 2014 – present
Assistant Professor of Mathematics	William Carey University	Aug. 2013 – May 2014
Part-Time Mathematics Tutor	Tutor.com	May 2013 – Aug. 2013
Physics Lab Assistant	Samford University	May 2008 – Aug. 2009
Engineering Research Intern	Southern Company Services	May 2007 – Sep. 2007

Teaching Experience

Basic Algebra	Discrete Mathematics	Probability
Intermediate Algebra	Calculus I	General Physics I
College Algebra	Calculus II	General Physics II
Algebra and Trigonometry	Calculus III	
Finite Mathematics	Differential Equations	
Fundamental Mathematics	Linear Algebra	
Quantitative Reasoning	Abstract Algebra	

Presentations

- “The Mathematics and Physics of Musical Instruments”
 - Project Ready STEM Retreat (Urban League of the Upstate), Southern Wesleyan University, Jul. 2015
- “Localization for Random Block Operators Related to the XY Spin Chain”
 - AMS Sectional Meeting Special Session, Knoxville, TN, Mar. 2014
- “Localization for a Non-Monotone Random Block Operator”
 - AMS Sectional Meeting Special Session, Tucson, AZ, Oct. 2012
- “Positivity of Lyapunov Exponents for the Anderson Model and a Random Block Operator Model”
 - 25th Annual University of Alabama System Applied Mathematics Meeting, Huntsville, AL, Nov. 2012

- Southeastern-Atlantic Regional Conference on Differential Equations, Winston-Salem, NC, Oct. 2012
- Guest Lecture: “Baire’s Theorem”
- MATH 440: Introductory Real Analysis, Samford University, Oct. 2011
- Guest Lecture: “Applications of Proof Techniques to Elementary Abstract Algebra”
- MATH 280: Introduction to Advanced Mathematics, Samford University, Nov. 2009
- Poster: “Periodic Solutions to Differential Equations”
- Exposition for Undergraduate Research, University of Alabama at Birmingham, Apr. 2008
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Professional Memberships

American Mathematical Society

Service

Committees:

Research Compliance Committee, Aug. 2015 - present

Computer Science Faculty Position Search Committee, Sep. 2014 - present

Commuter Concerns Committee, Aug. 2014 – present

Other Internal Service:

Lecturer, Project Ready STEM Retreat (Urban League of the Upstate), Jul. 2015

Server, SWU Late Night Breakfast, May 2015

Judge, SWU Regional Science Fair, Mar. 2015

Server, SWU Student Christmas Dinner, Dec. 2014

Faculty Sponsor, SWU Math Club, Nov. 2014 – present

Speaker, Science Division Chapel, Oct. 2014

Attendance Checker, SWU Spiritual Emphasis Chapel, Sep. 2014

Performer, SWU Jazz Ensemble, Aug. 2014 – present

Performer, SWU Wind Ensemble, Aug. 2014 – present

External Service

Volunteer, Pickens County Library Service Project, Mar. 2015

Performer, Brushy Creek Baptist Church Orchestra, Jul. 2014 – present

Conferences Attended

AMS Sectional Meeting, Knoxville, TN, Mar. 2014

AMS Sectional Meeting, Tucson, AZ, Oct. 2012

Southeastern-Atlantic Regional Conference on Differential Equations, Winston-Salem, NC, Oct. 2012

Arizona School of Analysis and Mathematical Physics, Tucson, AZ, Mar. 2012

Acoustical Society of America, 156th Meeting, Miami, FL, Nov. 2008

3rd Conference on Analysis and Probability on Fractals, Cornell University, Jun. 2008

Awards and Fellowships

\$330 Travel Support to present at SEARCDE in Winston-Salem, NC, Oct. 2012
\$250 Travel Support to present at AMS Sectional Meeting in Tucson, AZ, Oct. 2012
UAB Mathematics Teaching Assistantship, May 2011 – Aug. 2013
Outstanding Master's Student Award in Mathematics, 2010
2008-09 Robert M. Kauffman Memorial Award for Excellence in First Year Graduate Studies
Outstanding Undergraduate Student Award in Mathematics, 2008
UAB Mathematics Fast-Track MCTP Fellowship, May 2006 – May 2011

Publications

1. J. Chapman and G. Stolz, *Localization for random block operators related to the XY spin chain*, Ann. Henri Poincaré, **16**, (2015), 405-435
2. J. Chapman, *Spectral properties of random block operators*, PhD Dissertation, University of Alabama at Birmingham, (2013), electronically available at <http://gradworks.umi.com/3561259.pdf>
3. J. Chapman, *Differential equations and the method of upper and lower solutions*, Rose-Hulman Undergraduate Mathematics Journal, **10**, Issue 1, (2009), electronically available at <http://www.rose-hulman.edu/mathjournal/v10n1.php>