Derek Young

Contact

Information Email: ddyoung@iastate.edu

EDUCATION

Iowa State University, Ames, Iowa

Doctor of Philosophy in Mathematics, Department of Mathematics, expected in May 2019

Advisor: Dr. Leslie Hogben Iowa State University, Ames, Iowa

Bachelor of Science, Department of Mathematics, May 2013

Advisor: Dr. Clifford Bergman Advisor: Dr. Leslie Hogben Advisor: Dr. Sung Yell Song

Florida State College at Jacksonville, Jacksonville, Florida

Associate of Arts, May, 2010 Advisor: Gregory Dietrich

RESEARCH INTERESTS

Linear Algebra, Graph Theory, Combinatorics

RESEARCH

H Graduate:

EXPERIENCE

Iowa State University

Fall 2015, Department of Mathematics

Lower Bounds for the Exponential Domination Number of $C_m \times C_n$: Chassidy Bozeman, Joshua Carlson, Michael Dairyko, Derek Young, Michael Young.

Undergraduate:

Iowa State University

August 2011 - May 2013, Department of Mathematics Flows in Networks: Dr. Sung Yell Sung (Iowa State University)

Cornell University

June 2013 - July 2013, Department of Mathematics Finite Approximations of Ammann-Beenker Tiling: Dr. May Mei (Denison University)

University of Louisiana at Lafayette

May 2012 - July 2012, Department of Mathematics Division Algorithm Decoding of Reed-Solomon Codes: Eduardo Reynoso (California State University of Channel Islands), Brandy Thibodeaux (University of Louisiana at Lafayette), Amanda Urquiza(Arizona State University), Ashley Wheatley(Tennessee State University), Matthew Jake Lennon(University of Louisiana at Lafayette), Dr. Christina Eubanks-Turner(University of Louisiana at Lafayette)

North Carolina State University

May 2012 - July 2012, Department of Mathematics Randomize Matrix Multiplication: Dr. Ilse Ipsen (North Carolina State University)

RESEARCH PAPERS

Published

Families of graphs with maximum nullity equal to the zero forcing number: Joesph Alameda, Emelie Curl, Armando Grez, Leslie Hogben, O'Neill Kingston, Alex Schulte, Derek Young, Michael Young.

Division Algorithm Decoding of Reed-Solomon Codes: Christina Eubanks-Turner, Matthew Jake Lennon, Eduardo Reynoso, Brandy Thibodeaux, Amanda Urquiza, Ashley Wheatley, Derek Young.

arXiv

Lower Bounds for the Exponential Domination Number of $C_m \times C_n$: Chassidy Bozeman, Joshua Carlson, Michael Dairyko, Derek Young, Michael Young.

Conferences, Workshops and Talks

Contributed Talks:

- Lower Bounds for the Exponential Domination Number of $C_m \times C_n$: 47th Southeastern International Conference on Combinatorics, Graph Theory and Computing Boca Raton, Fl, March 7-11, 2016
- Flows in Networks: 7th Annual GMAP Research Symposium, Ames, IA, May 19, 2013.
- Division Algorithm Decoding of Reed Solomon Codes: 2012 Young Mathematicians Conference, Columbus, OH, July 27-29, 2012.

Contributed Posters:

- Determining the maximum nullity and minimum rank field independence for some graphs: Conference for African-American Researchers in the Mathematical Sciences, Princeton, NJ, July 11-14, 2018.
- Families of graphs with maximum nullity equal to zero forcing number: International Linear Algebra Society, Ames, IA, July 24 28 2017
- Families of graphs with maximum nullity equal to zero forcing number: Conference for African-American Researchers in the Mathematical Sciences, Ann Arbor, MI, June 21 24, 2017.
- Lower Bounds for the Exponential Domination Number of $C_m \times C_n$:

- Conference for African-American Researchers in the Mathematical Sciences, Princeton, NJ, June 15 18, 2016.
- Finite Approximations of Ammann-Beenker Tiling: Conference for African-American Researchers in the Mathematical Sciences, Princeton, NJ, June 11 14, 2014.
- Randomize Matrix Multiplication: Society for Advancement of Chicanos and Native Americans in Science, San Jose, CA, October 27-30, 2011.

Workshops and Conferences Attended

- Field of Dreams, St. Louis, MO 2016
- Conference for African-American Researchers in the Mathematical Sciences, Princeton, NJ, 2016
- 47th Southeastern International Conference on Combinatorics, Graph Theory and Computing Boca Raton, Fl, 2016
- Conference for African-American Researchers in the Mathematical Sciences, Princeton, NJ, 2014
- Field of Dreams, Phoenix, AZ, 2013
- Young Mathematicians Conference, Columbus, OH, 2012
- Field of Dreams, Phoenix, AZ, 2012
- Society for Advancement of Chicanos and Native Americans in Science, Seattle, WA, 2012
- Midwestern Graph Theory Conference, Ames, IA, 2012
- Field of Dreams, Phoenix, AZ, 2011
- Society for Advancement of Chicanos and Native Americans in Science, San Jose, CA, 2011
- Conference for African-American Researchers in the Mathematical Sciences, Rice University, Houston, TX, 2009

TEACHING EXPERIENCE

Iowa State University - Stand-alone

- Summer 2018 College Algebra
- Spring 2017 Calculus I

Iowa State University - Recitation

- Spring 2018 Calculus II
- Fall 2017 Business Calculus (Lab)
- Fall 2016 Calculus II
- Spring 2016 Calculus II
- Fall 2015 Preparation for Calculus (Project Pathways)
- Spring 2015 Preparation for Calculus (Project Pathways)
- Fall 2014 Preparation for Calculus (Project Pathways)
- Spring 2014 Calculus I
- Fall 2013 Business Calculus (Lab)

TUTORING EXPERIENCE Iowa State University

August 2010 - May 2013, Department of Mathematics

Tutor: Calculus I-III and higher level courses

Iowa State University

August 2010 - May 2013, Academic Success Center

Tutor: Algebra, Trigonometry, Calculus I, Linear Algebra

Florida State College

August 2009 - July 2010, Department of Mathematics

Tutor: Algebra and Calculus I-III

Honors and Awards Summer 2018 - Poster Award for "Best Theory", Conference for African-

American Researchers in the Mathematical Sciences(CAARMS)

Spring 2016 - Solve-a-Thon Grant, Iowa State University

Spring 2016 - Pathways Scholar for Transforming Undergraduate Math-

ematics Education Certificate, Arizona State University

Spring 2012 - College of Liberal Arts and Sciences Deans List

Spring 2009 - Ronald E. McNair Scholar, Iowa State University

MEMBERSHIPS

American Mathematical Society - Member

International Linear Algebra Society - Member

Mathematician of Color Association, Iowa State University - Website

Manager

Conference for African-American Researchers in the Mathematical Sci-

ences(CAARMS) - Member

Undergraduate Math Alliance Member - Member

Society for the Advancement of Chicanos and Native Americans in Sci-

ence(SACNAS) - Member

Language Skills English: native speaker

Computer: Sage, Shell Scripting, LaTeX, HTML

Volunteering

Ronald E. McNair Mentor, Fall 2013 - 2014

EXPERIENCE