Derek Young
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Curriculum Vitae

EDUCATION	Doctor of Philosophy in Mathematics Iowa State University - Ames, Iowa Advisor: Dr. Leslie Hogben	May 2019
	Bachelor of Science Iowa State University - Ames, Iowa Major: Mathematics Advisor: Dr. Sung Yell Song	May 2013
	Associate of Arts Florida State College at Jacksonville - Jacksonville, Florida Advisor: Gregory Dietrich	May 2010
PROFESSIONAL EXPERIENCE	Mount Holyoke, Mathematics Department Hutchcroft Fellow, Postdoctoral Visiting Lecturer	Fall 2019 -
	St. Olaf College, Mathematics Department Adjunct Instructor	Spring 2019
	Iowa State University, Mathematics Department Research Assistant	Summer 2017
	Iowa State University, Mathematics Department Teaching Assistant	Fall 2013-Fall 2018
GRANTS	A Room of One's Own, Duke University Spring 2020.	
	Solve-a-Thon Grant, Iowa State University Spring 2017.	
	Solve-a-Thon Grant, Iowa State University Spring 2016.	
HONORS AND AWARDS	Poster Award for "Best Theory", Conference for African-American Researchers in the Mathematical Sciences(CAARMS) Summer 2018.	
	Pathways Scholar for Transforming Undergraduate Mathematics Education Certificate, Arizona State University Spring 2016.	
	Ronald E. McNair Scholar 2010.	

TEACHING
EXPERIENCE

Mount Holyoke College

– Discrete Mathematics, Calculus II	Fall 2021
– Discrete Mathematics, Linear Algebra	Spring 2021
Linear Algebra	Fall 2020
Discrete Mathematics	Spring 2020

St. Olaf College
Calculus I   Spring 2019

Iowa State University
College Algebra   Summer 2018
Calculus I   Spring 2017

RESEARCH INTERESTS	Combinatorics, Linear Algebra, Graph Theory
RESEARCH PAPERS	**Published**

Derek Young. Techniques for Determining Equality of the Maximum Nullity and the Zero Forcing Number of a Graph. *Electron. J. Linear Algebra*, 2021

Joesph S. Alameda, Emelie Curl, Armando Grez, Leslie Hogben, O'Neill Kingston, Alex Schulte, Derek Young, and Michael Young. Families of graphs with maximum nullity equal to the zero forcing number. *Spec. Matrices*, 6:56-67, 2018.

Christina Eubanks-Turner, Matthew Jake Lennon, Eduardo Reynoso, Brandy Thibodeaux, Amanda Urquiza, Ashley Wheatley, Derek Young. Using the division algorithm to decode Reed-Solomon Codes. *Shanghai Normal University*, 44:3, 2015.

arXiv

Chassidy Bozeman, Joshua Carlson, Michael Dairyko, Derek Young, Michael Young. Lower Bounds for the Exponential Domination Number of $C_m \times C_n$. https://arxiv.org/abs/1803.01933. 2018.

WORKSHOPS ATTENDED	Spring Opportunities, American Mathematical Society, 2021 -

Inverse eigenvalue problems for graphs, American Institute of Mathematics, 2021 -

Spring Opportunities, American Mathematical Society, 2020

African Diaspora Joint Mathematics Workshop (ADJOINT), Mathematical Sciences Research Institute, 2019

Graduate Research Workshop in Combinatorics, 2017

INVITED TALKS	*Minimum Rank and Zero Forcing Parameters for Cobipartite Graphs* : Joint Mathematics Meetings, January 7, 2022

The Zero Forcing Number and Maximum Nullity of a Graph: University of Massachusetts Amherst, October 8, 2021

The Maximum Nullity and Zero Forcing Number of a Graph: Joint Mathematics Meetings Virtual, January 7, 2021

Maximum Nullity and Zero Forcing Number of a Graph: Slippery Rock University: Slippery Rock, PA, February 20, 2020

Some graphs whose maximum nullity and zero forcing number are the same: Joint Mathematics Meetings Denver, CO, January 16, 2020

Determining the Maximum Nullity and Minimum Rank Field Independence for some graphs: 50th Southeastern International Conference on Combinatorics, Graph Theory and Computing Boca Raton, FL, March 4-8, 2019.

Techniques for Determining Equality of the Maximum Nullity and the Zero Forcing Number of a Graph: St. Olaf College Research Seminar Northfield, MN, March 22, 2019.

CONTRIBUTED TALKS	*Maximum Nullity and Zero Forcing Number of a Graph*: Mount Holyoke College South Hadley, MA, February 12, 2020

Determining the Maximum Nullity and Minimum Rank Field Independence for some graphs: Joint Mathematics Meetings Baltimore, MD, January 16-19, 2019.

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.

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.

MEMBERSHIPS
American Mathematical Society(AMS)

American Institute of Mathematics(AIM)

National Association of Mathematicians(NAM)

International Linear Algebra Society(ILAS)