

Kris Hollingsworth
Curriculum Vitae
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PRESENT POSITION

University of Delaware - Newark, DE
PhD Student and RA, Department of Mathematical Sciences **2017-Present**
Advisors: Mahya Ghandehari and Dominique Guillot

EDUCATION

University of Delaware - Newark, DE
MS, Mathematics **2017**

University of Central Arkansas - Conway, AR
BA, Mathematics, *summa cum laude* **2014**
Minor: Studio Art

North Arkansas College - Harrison, AR
AA, *summa cum laude* **2012**

AWARDS AND HONORS

2018 First Place—University of Delaware Winter Research Symposium Poster Competition
2016 GEMS Summer Research Fellowship
2014 O.L. Hughs Award
2012 Phi Theta Kappa and Coca-Cola New Century Scholar
2012 Graduating departmental honors in mathematics, speech, and theatre
2012 Student Speaker for graduating class, North Arkansas College
2012 All-USA Community College Academic Team
2011 Arkansas Academic All-Star Scholarship
2010 Second Effort Scholarship

PUBLICATIONS

M. Ghandehari and K. Hollingsworth. *Constructing Discrete Frames for $L^2(\mathbb{R}^{n^2})$ from Continuous Wavelet Transforms*. (In preparation)

INVITED TALKS

Sound Exploder: Viewing Audio as a Mathematical Object at MathCounts Day 2018

DEPARTMENTAL TALKS

Constructing Discrete Frames from Continuous Wavelet Transforms at the Hollenbeck Graduate

Student Seminar 2018

An Introduction to Graph Signal Processing at PRODAG Seminar 2017

Some Fun With Hypercubes at the Hollenbeck Graduate Student Seminar 2017

Constructing a Frame from a Continuous Wavelet Transform at the What's Hot in Mathematics Workshop 2016

Constructing a Discrete Frame from a Continuous Wavelet Transform at the Summer Research Symposium 2016

A (brief) Introduction to Frame Theory at the Summer Research Seminar 2016

TEACHING EXPERIENCE

University of Delaware - Newark, DE

2015 to Present

Instructor of Record

- Pre-Calculus and Trigonometry (Summer II 2017)
- Pre-Calculus and Trigonometry (Summer I 2017)

Teaching Assistant

- Honors Analytic Geometry and Calculus B (Fall 2017)
- Analytic Geometry and Calculus C (Fall 2016, Spring 2017)
- Analytic Geometry and Calculus B - Computer Labs (Spring 2016)
- Calculus I for Business (Fall 2015)

North Arkansas College - Harrison, AR

2014-2015

Adjunct Faculty (Spring 2015)

- Photography 1

Tutor (Fall 2014, Spring 2015)

- Fundamentals of Algebra
- College Algebra
- Trigonometry
- Calculus I
- Calculus II
- English Composition

University of Central Arkansas - Conway, AR

2013

Federal Workstudy (Spring 2013, Fall 2013)

- Grader for Calculus I and Calculus II

North Arkansas College - Harrison, AR

2003, 2011-2012

Federal Workstudy (Fall 2011, Spring 2012)

- Art department studio assistant

Federal Workstudy (Fall 2010, Spring 2011)

- Tutor for mathematics classes through TRIO

Tutor for Disability Services (Fall 2003)

- Introduction to C++

RESEARCH EXPERIENCE

University of Delaware - Newark, DE
Groups Exploring the Mathematical Sciences (GEMS) **2016**
Advisor: Mayha Ghandehari

University of Central Arkansas - Conway, AR
Research Assistant, University of Arkansas for Medical Sciences **2013-2014**
Advisor: Bhavanandan Leni Rathinasamy

DEPARTMENTAL SERVICE

2017 Organizer · Department Picnic
2017 Teaching Assistant · First Year Exam's Preparation–Analysis
2016 RAMPs Teaching Assistant · Preliminary Exam Preparation for Analysis
2012 Student Representative · North Arkansas College's Presidential Search Committee
2012 Student Representative for North Arkansas College's Strategic Planning Council
2011 New Student Orientation Leader · North Arkansas College

EXTRACURRICULAR UNIVERSITY SERVICE

2017-2018 Vice President · University of Delaware SIAM Student Chapter
2013-2014 Vice-President · University of Central Arkansas Mathematics Club
2013 Course Note Taking for Disability Services · University of Central Arkansas
2012 Technical Director · Drama Department at North Arkansas College
2011-2012 Editor · *Cave Region Review: A Journal of Literary and Visual Art*
2010-2012 Vice-Chair and Student Ambassador · North Arkansas College Green Team

COMMUNITY INVOLVEMENT

2018 Delaware Science Olympiad - Volunteer and Organizer of Fermi Problems
2008-2012 Help-Portrait NWA - Volunteer photographer
2008-2012 North Arkansas Photography Club - Founding board member, workshop leader
2000-2009 Ozark Arts Council - Volunteer assisting in theatre productions
1998-2008 Academy of Self-Defense and Karate - Volunteer instructor for self-defense courses

PROFESSIONAL SKILLS

Operating Systems:	Windows and Linux (CentOS, Ubuntu)
Programming:	PHP, SQL, XHTML, CSS, Java, J2ME, C#, C++
Databases:	MySQL, PostgreSQL, SQL Server
Applications:	LaTeX, Mathematica, Maple, Sage, MS Visio
Services:	Apache HTTP Server, DNS, DHCP

PROFESSIONAL EXPERIENCE

Trianglehead Photography - Harrison, AR **2007 to 2009**

Owner/Operator

Konaware, Inc. - Harrison, AR & Fayetteville, AR
Application Engineer, IT Systems Administrator

2005 to 2007

Advanced Computer Services - Harrison, AR
Computer Programmer, IT Systems Administrator

2003 to 2005

PROFESSIONAL MEMBERSHIPS

American Mathematical Society (AMS)

Society for Industrial and Applied Mathematics (SIAM)

Association for Women in Mathematics (AWM)