

## Contact Information

Lafayette College  
Department of Mathematics  
203 Pardee Hall  
Easton, PA 18042-1778

farmanb@lafayette.edu

## Citizenship

Born October 11, 1987 in Burlington, Vermont, United States

## Research Interests

(Noncommutative) Algebraic geometry, derived categories, and category theory.

## Education

*Doctor of Philosophy, Mathematics* May 12, 2018  
University of South Carolina, Columbia, SC  
Dissertation Title: Geometry of derived categories on noncommutative projective schemes  
Advisor: Matthew Ballard

*Master of Science, Mathematics* May 22, 2011  
University of Vermont, Burlington, VT  
Major Concentration: Abstract Algebra  
Minor Concentration: Algebraic Number Theory

*Bachelor of Science, Computer Science* May 16, 2009  
Rensselaer Polytechnic Institute, Troy, NY  
Minors: Applied Mathematics and French

## Employment

*Visiting Assistant Professor* July 2018 - Present  
Lafayette College, Easton, PA

*Graduate Teaching Assistant* August 2012 - May 2018  
University of South Carolina, Columbia, SC

*Graduate Teaching Assistant* August 2009 - May 2011  
University of Vermont, Burlington, VT

*Undergraduate Research/Teaching Assistant* May 2008 - May 2009  
Rensselaer Polytechnic Institute, Troy, NY

## Papers/Preprints

with Matthew Ballard. *Kernels for Noncommutative Projective Schemes*. arXiv:1709.06470      Submitted

*Geometry of Derived Categories on Noncommutative Projective Schemes*. Dissertation.      2018

## Presentations

*Kernels for Noncommutative Projective Schemes*      November 28, 2017  
Graduate Colloquium  
University of South Carolina, Columbia, SC

*Kernels for Noncommutative Projective Schemes*      October 12, 2017  
Algebra Seminar  
University of New Brunswick, Fredericton, NB, CA

*Kernels for Noncommutative Projective Schemes*      October 9, 2017  
Algebra Seminar  
Temple University, Philadelphia, PA

*Kernels for Noncommutative Projective Schemes*      August 28, 2017  
Algebraic Geometry Seminar  
University of South Carolina, Columbia, SC

*Noncommutative Projective Schemes*      May 13, 2016  
Temple Graduate Student Conference in Algebra, Geometry, and Topology  
Temple University, Philadelphia, PA

*Noncommutative Projective Schemes*      May 14, 2016  
Student Algebra/Number Theory Seminar  
University of South Carolina, Columbia, SC

*Fully Faithful Abstract Nonsense:*      November 2015  
*Representable Functors and The Yoneda Embedding*  
Graduate Colloquium  
University of South Carolina, Columbia, SC

*Fully Faithful Abstract Nonsense:*      July 2015  
*Representable Functors and The Yoneda Embedding*  
Graduate Student Algebraic Geometry, Commutative Algebra, and Number Theory Seminar  
University of South Carolina, Columbia, SC

## Organizer

<i>Student Algebra/Number Theory Seminar</i> University of South Carolina	Summer 2016
<i>Student Algebraic Geometry, Commutative Algebra, and Number Theory Seminar</i> University of South Carolina	Summer 2015
<i>Student Algebraic Geometry Seminar</i> University of South Carolina	Spring 2015
<i>Student Algebraic Geometry Seminar</i> University of South Carolina	Fall 2014

## Conferences Attended

<i>Georgia Algebraic Geometry Symposium</i> Georgia Institute of Technology, Atlanta, GA	February 23-25, 2018
<i>Workshop on Topics in Algebraic Geometry</i> The University of North Carolina at Chapel Hill, Chapel Hill, NC	November 3-5, 2017
<i>Palmetto Number Theory Series (PANTS) XXVIII</i> University of Tennessee, Knoxville, TN	September 16-17, 2017
<i>Georgia Algebraic Geometry Symposium</i> University of Georgia, Athens, GA	March 3-5, 2017
<i>Workshop on Symplectic Varieties and Geometric Representation Theory</i> The University of North Carolina at Chapel Hill, Chapel Hill, NC	October 28-30, 2016
<i>UGA-SWAG: Summer Workshop in Algebraic Geometry</i> University of Georgia, Athens, GA	August 26-29, 2016
<i>Temple Graduate Student Conference in Algebra, Geometry, and Topology</i> Temple University, Philadelphia, PA	May 14-15, 2016
<i>Georgia Algebraic Geometry Symposium</i> Emory University, Atlanta, GA	October 2015
<i>AMS Summer Institute on Algebraic Geometry</i> University of Utah, Salt Lake City, UT	July 27 - 31, 2015
<i>Georgia Algebraic Geometry Symposium</i> University of Georgia, Athens, GA	October 2014
<i>Arizona Winter School</i> University of Arizona, Tucson, AZ	March 2014
<i>Palmetto Number Theory Series (PANTS) XXI</i> Clemson University, Clemson, SC	December 2013

<i>Palmetto Number Theory Series (PANTS) XX</i> Davidson College, Davidson, NC	September 2013
<i>Algebraic Geometry Northeastern Series (AGNES)</i> Yale University, New Haven, CT	April 2013
<i>AMS Spring Western Sectional Meeting</i> University of Colorado, Boulder, CO	April 2013
<i>Palmetto Number Theory Series (PANTS) XIX</i> University of South Carolina, Columbia, SC	December 2012
<i>Palmetto Number Theory Series (PANTS) XVIII</i> Wake Forest University, Winston-Salem, NC	September 2012

## Teaching Experience

### University of South Carolina Columbia, SC

#### Instructor of Record

<i>Math 142 - Calculus II</i>	Spring 2018
<i>Math 111 - Basic College Mathematics</i>	Fall 2017
<i>Math 122 - Calculus for Business Administration and Social Sciences</i>	Spring 2017
<i>Math 116 - Brief Precalculus Mathematics</i>	Fall 2016
<i>Math 170 - Finite Mathematics</i>	Spring 2016
<i>Math 116 - Brief Precalculus Mathematics</i>	Fall 2015
<i>Math 111 - Basic College Mathematics</i>	Spring 2015
<i>Math 115 - Precalculus Mathematics</i>	Fall 2014
<i>Math 142 - Calculus II</i>	July 2014
<i>Math 170 - Finite Mathematics</i>	Spring 2014
<i>Math 116 - Brief Precalculus Mathematics</i>	Fall 2013
<i>Math 111 - Basic College Mathematics</i>	May - June 2013

#### Teaching Assistant

<i>Math 141 - Calculus I</i>	Spring 2013
<i>Math 142 - Calculus II</i>	Fall 2012

### University of Vermont Burlington, VT

#### Instructor of Record

<i>Math 019 - Fundamentals of Calculus I</i>	Fall 2010
<i>Math 017 - Applications of Finite Math</i>	Summer 2010
<i>Math 017 - Applications of Finite Math</i>	Spring 2010
<i>Math 017 - Applications of Finite Math</i>	Fall 2009

### Rensselaer Polytechnic Institute Troy, NY

#### Teaching Assistant

<i>CSCI 4940 - Robotics II</i>	Spring 2009
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## Professional Membership

Member of the American Mathematical Society

## Service

<i>University of South Carolina High School Math Contest Proctor</i>	January 2015
<i>University of South Carolina High School Math Contest Proctor</i>	February 2014
<i>University of South Carolina High School Math Contest Proctor</i>	January 2013

## Honors

<i>Rensselaer Medalist</i>	2004
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\$60,000 scholarship to Rensselaer Polytechnic Institute.

## Non-Academic Employment

<i>Associate</i>	August 2011 - August 2012
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Princeton Consultants, Inc, Princeton, NJ  
Information Technology consultant.

<i>Mountain Ambassador</i>	Winters 2004-2008
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Killington, Ltd., Killington, VT  
The Killington Ambassador Program is an on-slope volunteer program designed to improve the experience of guests by providing local knowledge, information, directions, safety tips, and just about any other help a guest might need.