

# Alicia Mae Lamarche *Curriculum Vitae*

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## Education

University of South Carolina	COLUMBIA, SC
<b>Ph.D. in Mathematics</b>	2015-Present
<i>Advisor:</i> Matthew Robert Ballard	
<i>Area of Study:</i> Algebraic Geometry	
Shippensburg University of Pennsylvania	SHIPPENSBURG, PA
<b>Bachelor of Science in Mathematics</b>	2013-2015
Minor in Computer Science	

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## Research & Publications

### In Preparation.

1. M. Ballard, A. Duncan, A. Lamarche and P. McFaddin, Arithmetic, rationality questions, and derived categories — *In Progress*
2. M. Ballard, A. Lamarche, Rationality of Generalized Del Pezzo Varieties — *In Progress*
3. M. Ballard, A. Duncan, A. Lamarche and P. McFaddin, Coflasque Resolutions and Brauer Groups Invisibility — *In Progress*

### Published.

1. K. Bresz, L. Jones, A. Lamarche and M. Markovich, A problem related to a conjecture of Polignac, *Integers* **16** (2016), Paper No. A43, 8 pp. MR3512873
  2. J. Harrington, L. Jones and A. Lamarche, Characterizing finite groups using the sum of the orders of the elements, *Int. J. Comb.* **2014**, Art. ID 835125, 8 pp. MR3280890
  3. J. Harrington, L. Jones and A. Lamarche, Representing integers as the sum of two squares in the ring  $\mathbb{Z}_n$ , *J. Integer Seq.* **17** (2014), no. 7, Article 14.7.4, 10 pp. MR3238121
  4. L. Jones and A. Lamarche, Generating  $d$ -composite sandwich numbers, *Integers* **15A** (2015), Paper No. A10, 21 pp. MR3361819
  5. L. Jones and A. Lamarche, The irreducibility of polynomials related to a question of Schur, *Involve* **9** (2016), no. 3, 453–464. MR3509338
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## Teaching Experience

University of South Carolina	
<b>Instructor of Record</b>	
• 546 - Abstract Algebra	Summer 2019
• 141 - Calculus 1	Summer 2016, 1207
• 122 - Business Calculus	Spring 2017, 2018
• 115 - Precalculus	Fall 2016
• 111 - College Algebra	Fall 2017, 2019

## Teaching Assistant

- 142 - Calculus 2 Fall 2015, Spring 2016
- 141 - Calculus 1 Fall 2018

## Shippensburg University of Pennsylvania

- Mathematics peer tutor via the *University Learning Center*. 2013-2015
  - Classroom Assistant for College Algebra and Linear Algebra 2013-2014
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## Awards & Grants

- Dera D. Parkinson Graduate Fellowship 2019
  - SPARC Graduate Research Grant via University of South Carolina 2018
  - *Honorable Mention* - NSF Graduate Research Fellowship 2017
  - James Eldon Award in Mathematics 2015
  - Michael D. Seyfried Memorial Achievement Scholarship 2014-2015
  - Shippensburg University Undergraduate Research Grant 2014-2015
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## Professional Activities

- Graduate Student Instructor Peer Mentor Program (*Mentor*) 2019  
*NSF Award #1725295*
  - Mathematics Tutoring Center Coordinator 2019
  - Graduate Student Instructor Peer Mentor Program (*Research Assistant*) 2018  
*NSF Award #1725295*
  - Graduate Student Representative for the UofSC Math Graduate Council 2017-2018
  - Organizer, *Graduate Colloquium Series at UofSC* 2017-2018  
[http://people.math.sc.edu/alicial/grad\\_colloquium/](http://people.math.sc.edu/alicial/grad_colloquium/)
  - Organizer, *Graduate Student Seminar on Elliptic Curves* 2017  
<http://people.math.sc.edu/alicial/seminars/curvesS17.html>
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## Selected Seminar Talks

- *Derived Categories, Arithmetic, and Rationality Questions*  
Algebraic Geometry Seminar at the University of Georgia *September 18* Fall 2019
  - Algebraic Geometry Seminar at Rice University *September 10* Fall 2019
  - Algebraic Geometry Seminar at Emory University Fall 2019
  - FRAGMENT Seminar at Colorado State University *October 17* Fall 2019
  - *Abstract Nonsense*, University of South Carolina Graduate Colloquium. Fall 2018
  - *Exceptional collections of toric varieties associated to root systems*, Algebraic Geometry Seminar at the University of South Carolina. Fall 2018
  - *Algebraic Geometry & Toric Varieties*, UofSC AWM Graduate Research Fair. Spring 2018
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## Recent/Future Conferences & Workshops

- *Interactions between Brauer Groups, Derived Categories and Birational Geometry of Projective Varieties*, November 10-15, 2019. BIRS.
- *MSRI-NCTS Joint Summer School on Toric Varieties*, July 29-August 9, 2019. Taipei, Taiwan.
- *Mathematics Research Communities: Explicit Methods in Arithmetic Geometry in Characteristic  $p$* , June 16-22, 2019.
- *Women in Homotopy Theory and Algebraic Geometry*, March 20-22, 2019. Freie Universität Berlin.
- *Introductory Workshop: Derived Algebraic Geometry and Birational Geometry and Moduli Spaces*, January 31-February 8, 2019. MSRI.
- *Connections for Women: Derived Algebraic Geometry and Birational Geometry and Moduli Spaces*, January 28-30, 2019. MSRI.
- *A Day of Algebraic Geometry in Savannah*, March 31, 2018. Georgia Southern.
- *The Georgia Algebraic Geometry Symposium*, February 23-25, 2018. Georgia Tech.
- *Graduate Workshop in Algebraic Geometry for Women and Mathematicians of Minority Genders*, February 17-18, 2018. Harvard/MIT.
- *Workshop on Topics in Algebraic Geometry*, November 3-5, 2017. UNC Chapel Hill.
- *The Georgia Algebraic Geometry Symposium*, March 3-5, 2017. University of Georgia
- *Workshop on Symplectic Varieties and Geometric Representation Theory*, October 28-30, 2016. UNC Chapel Hill.
- *UGA-SWAG: Georgia Summer Workshop in Algebraic Geometry*, August 26-29, 2016. University of Georgia.
- *Workshop on New Developments in Moduli and Geometric Invariant Theory*, November 20-22, 2015. UNC Chapel Hill.