

# JONATHAN SMITH

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## SYNOPSIS

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I am a PhD candidate in Mathematics at the University of South Carolina studying algebraic geometry under the advisement of Alex Duncan.

## EDUCATION

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**University of South Carolina** 2019 - Present

- Ph.D. in Mathematics
- Advisor: Alex Duncan

**Liberty University** 2015 - 2019

- Bachelor of Science in Mathematics
- Bachelor of Arts in Philosophy

## RESEARCH INTERESTS

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I broadly study algebraic geometry, but I am particularly interested in classical questions within birational geometry. I currently study topics like Galois cohomology, Fano varieties, and Cremona groups. I have recently started to think about derived categories as well.

## RESEARCH AND PUBLICATIONS

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### In Preparation

- (1) J. Smith, *Automorphisms of Del Pezzo Surfaces in Characteristic Zero* – In Preparation

## EXPOSITORY TALKS

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**Diagonalizable Groups**, *Linear Algebraic Groups Seminar* at UofSC, July 2022.

**Actions of Algebraic Groups on Varieties**, *Linear Algebraic Groups Seminar* at UofSC, May 2022.

**Understanding Forms with Galois Cohomology**, *AGCA Student Seminar* at UofSC, February 2022.

**Introduction to Galois Cohomology**, *AGCA Student Seminar* at UofSC, November 2021.

**Birational Geometry of the Projective Plane**, *AGCA Student Seminar* at UofSC, October 2021.

**Finding Irreducible Characters and the Canonical Decomposition**, *Student Seminar on Representation Theory* at UofSC, June 2021.

**The Character of a Representation**, *Student Seminar on Representation Theory* at UofSC, June 2021.

**An Introduction to Weil Divisors**, *AGNT Seminar* at UofSC, April 2021.

## AWARDS AND GRANTS

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- Outstanding First Year Graduate Student Award: Internal departmental award at UofSC 2020
- Frederick Copleston History of Philosophy Award: Internal departmental award at LU 2018

## PROFESSIONAL ACTIVITIES

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- Co-organizer, *Graduate Colloquium Series*, UofSC 2022 - 2023
- Grace Community Academy online math proctor for grades 7 through 12 2021 - 2022
- Organizer, *Student Seminar on Representation Theory*, UofSC Summer 2021
- Peer tutor in Mathematics, Liberty University 2018 - 2019

**University of South Carolina***Instructor of Record:*

- Math 241 (Online) - Vector Calculus Summer 2020
- Math 170 - Finite Math Spring 2022
- Math 122 (Online) - Business Calculus Fall 2021
- Math 122 - Business Calculus Spring 2021
- Math 116 - Brief Precalculus Fall 2021
- Math 111I - Intensive College Algebra Fall 2020, Fall 2022

*Teaching Assistant:*

- Math 142 - Calculus 2 Fall 2019
- Math 141 - Calculus 1 Spring 2020

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**CONFERENCES AND WORKSHOPS**

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*The Palmetto Number Theory Series XXXIV*, September 24-25, 2022. University of North Carolina at Charlotte.

*The Georgia Algebraic Geometry Symposium*, April 1-3, 2022. Emory University.