ERIC WALKER

CURRICULUM VITAE

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SCEN 325

https://locallyringed.space

EDUCATION

| PhD Candidate in Mathematics; advisor: Prof. Lance Edward Miller. | University of Arkansas | in progress |
|---|------------------------|-------------|
| MS in Mathematics. | University of Arkansas | May 2018 |
| BA cum laude with distinction in Mathematics and in Spanish; | | |
| math advisor: Prof. Christopher Camfield; | Hendrix College | May 2016 |
| thesis: An Open Door to Geometric Measure Theory. | | |

RESEARCH INTERESTS

Homological and homotopical algebra, singularities in positive characteristic, derived methods in commutative algebra and algebraic geometry.

HONORS AND AWARDS

| William Alton Anderson Endowed Scholarship in Arts & Sciences | University of Arkansas | 2019-2020 |
|---|------------------------|-----------|
| Julia Hicks Endowed Graduate Teaching Award | University of Arkansas | 2018-2019 |
| Lawrence Jesser Toll, Jr. Endowed Fund | University of Arkansas | 2017-2018 |

PUBLICATIONS AND PREPRINTS

| Derived jets and arcs | [arXiv] |
|---|---------|
| In preparation with Lance Edward Miller | [drxiv] |

TALKS

| CARES: Commutative Algebra Regional Expository Seminar (virtual) The module of Kähler differentials | 12 October 2021 |
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| Jet Spaces / Arc Spaces Learning Seminar (UCSD, virtual) Jets, arcs, and cylinders | 19 May 2021 |
| CARES: Commutative Algebra Regional Expository Seminar (virtual) Macaulay2 Panel (joint with Michael DeBellevue, Alexander Duncan, David Smith) | 15 April 2021 |
| CARES: Commutative Algebra Regional Expository Seminar (virtual) Jet and arc spaces from a commutative algebra point of view | 11 March 2021 |
| The Curry Seminar: Algebra and topology seminar (internal) The Silmarillion: K-Theory | 13 October 2020 |
| Graduate student colloquium (internal) What's on the mind of air traffic controllers and algebraic geometers? (An introduction to jet spaces) | 11 March 2020 |
| Spectral sequence seminar (internal) Differentially bigraded algebras and spectral sequence constructions | 31 July 2019 |
| Spectral sequence seminar (internal) Perfectly balanced: Using spectral sequences to balance Tor and Ext, and the Universal Coefficient Theorem | 25 July 2019 |

TEACHING EXPERIENCE

| Calculus 1 instructor/coordinator | Summer 2020 (coord.), Summer 2019 (coord.), Summer 2018, Summer 2017. |
|-----------------------------------|---|
| Survey of Calculus instructor | Summer 2021, Spring 2021. |
| College Algebra instructor | Fall 2021, Fall 2020, Spring 2020, Fall 2019, Spring 2019, Fall 2018, Spring 2018, Fall 2017. |
| Math Spot tutor | Since Fall 2016. |
| Calculus 1 teaching assistant | Spring 2017, Fall 2016. |

SERVICE

• Co-organized and participated in STAG: Students Teaching Algebraic Geometry, a student-ran algebraic geometry discussion seminar.