

# *Curriculum Vitae*

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## **Research Interests**

- Algebraic Geometry-derived categories, stability conditions, Lagrangian fibrations, quiver representations.

## **Employment**

- University of North Carolina at Chapel Hill 08/2020 -08/2023  
Postdoctoral Research Associate  
**Mentor:** Justin Sawon

## **Education**

- PhD in Mathematics, 08/2013-07/2020  
Indiana University Bloomington.  
Advisor: Valery Lunts.
- BSc in Mathematics, 08/2009-05/2013  
Chinese University of Hong Kong.

## **Publications and Preprints**

1. *Birational geometry of the Mukai systems of rank three and genus two*, (joint with Justin Sawon), in preparation.
2. *Bridgeland stability of minimal instanton bundles on Fano threefolds*, arXiv:2105.14617
3. *Compactification of the moduli space of minimal instantons on the Fano threefold  $V_4$* , European Journal of Mathematics, **7** (2021), 1502 – 1523.
4. *Compactification of the moduli space of instanton sheaves on the Fano threefold  $V_5$* , Journal of Pure and Applied Algebra, DOI: 10.1016/j.jpaa.2020.106526
5. *Moduli of quiver representations for exceptional collections on surfaces*, (joint with Shizhuo Zhang), arXiv:1803.06533, submitted.
6. *Blow ups of  $\mathbf{P}^n$  as quiver moduli for exceptional collections*, arxiv: 1804.09544

## **Invited Talks**

- *Compactification of the moduli space of minimal instantons on the Fano threefold  $V_4$ , Geometric Methods in Representation Theory Seminar, UNC Chapel Hill, Nov 2021.*
- *Compactification of the moduli space of minimal instantons on the Fano threefold  $V_4$ , online Seminar, Chongqing University of Technology, July 2021.*
- *Compactification of the moduli space of minimal instantons on the Fano threefold  $V_4$ , Campinas Algebraic Geometry Summer Meeting(online), UNICAMP, Campinas, Feb 2021.*
- *Moduli space of instanton sheaves on the Fano 3-fold  $V_4$ , Graduate Algebraic Geometry Seminar, Indiana University, Sep 2019.*
- *Moduli spaces of quiver representations for exceptional collections on surfaces, Algebra Seminar, Indiana University, Feb 2018.*

## Recent Conferences and Workshops

- Derived Categories, Moduli Spaces, and Hyperkähler Varieties, UMich, 2022.
- Derived Categories and Moduli Spaces, Cornell University, 2022.
- FRG Workshop on Stability, Moduli Spaces and Applications, UIC, 2019.
- I-70 Algebraic Geometry Symposium, WUSTL, 2019.
- Facets of Algebraic Geometry, UMich, 2019.
- AMS Fall Central Sectional Meeting, UW Madison, 2019.
- International Workshop on Derived Categories and Related Topics, SYSU China, 2019.
- Young Mathematicians Academic Forum - Sminaire Mathjeunes, UTSC China, 2019.
- Midwest Algebraic Geometry Graduate Conference, UIC, 2019.

## Awards and Grants

- Hazel King Thompson Fellowship, Indiana University, Spring 2019.
- Hazel King Thompson Fellowship, Indiana University, Summer 2018.
- Hazel King Thompson Fellowship, Indiana University, 2013-2014

## Teaching Record

University of North Carolina at Chapel Hill

- MATH233 Calculus of Functions of Several Variables, Honors section, Spring 2022.
- MATH318 Discrete Mathematics, Spring 2022.
- MATH318 Discrete Mathematics, Fall 2021.

- MATH318 Discrete Mathematics, Spring 2021.
- MATH318 Discrete Mathematics, Honors section, Fall 2020.

Indiana University:

- V119 Applied Brief Calculus, Spring 2020.
- V119 Applied Brief Calculus, Fall 2019.
- M118 Finite Math, Summer 2017.

### **Mentoring (REU)**

- William Hargis, Fall 2016. Topic: Introduction to representation theory.

Last update: Mar 2022.