Curriculum Vitae

Xuqiang Qin

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Research Interests

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

Employment

- Postdoctoral Research Associate   08/2020-08/2023
  University of North Carolina at Chapel Hill
  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 Beauville-Mukai systems III: asymptotic behavior*, (joint with Justin Sawon), in preparation.

2. *Birational geometry of Beauville-Mukai systems II: general theory in low ranks*, (joint with Justin Sawon), arXiv:2207.12608

3. *Birational geometry of Beauville-Mukai systems I: the rank three and genus two case*, (joint with Justin Sawon), arXiv:2207.12603.

4. *Bridgeland stability of minimal instanton bundles on Fano threefolds*, arXiv:2105.14617

5. *Compactification of the moduli space of minimal instantons on the Fano threefold V_4*, European Journal of Mathematics, **7** (2021), 1502 − 1523.

6. *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

7. *Moduli of quiver representations for exceptional collections on surfaces*, (joint with Shizhuo Zhang), arXiv:1803.06533, submitted.

8. *Blow ups of $\mathbf{P^n}$ as quiver moduli for exceptional collections*, arxiv: 1804.09544

Invited Talks

- *Birational geometry of the Mukai system on a K3 surface*, Binghamton Arithmetic Seminar, Binghamton University, Apr 2022.

- *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 Hyperkhler Varieties, UMich, 2022.

- Derived Categories and Moduli Spaces, Cornell Univesity, 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

- MATH318 Discrete Mathematics, Spring 2023.

- MATH231H Calculus of Functions of One Variable, Honors section, Spring 2023.

- MATH231H Calculus of Functions of One Variable, Honors section, Fall 2022.

- MATH233H 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.

- MATH318H 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: July 2022.