

Rui Xiong

熊锐; Xióng Ruì.



cubicbear.github.io

Personal Information

- **First Name** RUI
- **Last Name** XIONG
- **E-mail** rxion043@uOttawa.ca
- **Advisor** Kirill Zainoulline

Education

- **B.Sc.** 2015 – 2019, SHANDONG UNIVERSITY, CHINA.
关于群行列式理论 (*On the theory of group determinants*)
Advisor: [Shoumin Liu](#)
- **M.Sc.** 2019 – 2021, SAINT PETERSBURG STATE UNIVERSITY, RUSSIA.
Comodule Structure of Chow Rings of Flag Varieties
Advisor: [Victor Petrov](#)
- **PhD student** 2022 – 2026, UNIVERSITY OF OTTAWA, CANADA.
Hecke type algebras, Schubert calculus and its Applications to algebraic cycles
Advisor: [Kirill Zainoulline](#)

Research Areas

Enumerative Geometry, Algebraic Combinatorics;
Geometric Representation Theory.

Publications

- [1] 集合论、拓扑与代数初步 (*An introduction to set theory, topology and algebra*).
[TSINGHUA UNIVERSITY PRESS](#), ISBN: 9787302541646 (2019).
[Shoumin Liu](#) and [Rui Xiong](#)
- [2] *Automorphisms of the Quantum Cohomology of the Springer Resolution and Applications*.
[ADVANCES IN MATHEMATICS](#), Volume 442, April 2024, 109577.
[Changzheng Li](#), [Changjian Su](#) and [Rui Xiong](#) [[arXiv:2304.07173](#)]
- [3] *Equivariant log-concavity and equivariant Kähler packages*.
To appear in [JOURNAL OF ALGEBRA](#) (2024).
[Tao Gui](#) and [Rui Xiong](#) [[arXiv:2205.05420](#)]

Preprints

- [4] *Pieri and Murnaghan–Nakayama type Rules for Chern classes of Schubert Cells*. (submitted)
[Neil J.Y. Fan](#), [Peter L. Guo](#) and [Rui Xiong](#) [[arXiv:2211.06802](#)] [math.CO](#) [math.AG](#)
- [5] *Structure algebras, Hopf algebroids and oriented cohomology of a group*. (submitted)
[Martina Lanini](#), [Rui Xiong](#) and [Kirill Zainoulline](#) [[arXiv:2303.02409](#)] [math.AG](#) [math.RT](#) [math.CO](#)

- [6] *Bumpless pipe dreams meet puzzles.* (submitted)
Neil J.Y. Fan, Peter L. Guo and Rui Xiong [[arXiv:2309.00467](#)] [math.CO](#) [math.AG](#)
- [7] *On the Peterson subalgebra and its dual.*
Rui Xiong, Changlong Zhong and Kirill Zainoulline [[arXiv:2312.03965](#)] [math.RA](#) [math.AG](#)
- [8] *A Pieri type formula for motivic Chern classes of Schubert cells in Grassmannians.* (submitted)
Neil J.Y. Fan, Peter L. Guo, Changjian Su and Rui Xiong [[arXiv:2402.04500](#)] [math.CO](#) [math.AG](#)
[math.RT](#)
- [9] *Motivic Lefschetz theorem for twisted Milnor hypersurfaces.*
Rui Xiong and Kirill Zainoulline [[arXiv:2404.07314](#)] [math.AG](#)
- [10] coming soon ...

L^AT_EX

- [11] The L^AT_EX package TooYoung. [[Github:CubicBear/TooYoung](#)]