# Rui Xiong

熊锐; Pinyin: Xióng Ruì.

cubicbear.github.io

## Personal Information


- **First Name** Rui
- **Last Name** Xiong
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- **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

## 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.*
Neil J.Y. Fan, Peter L. Guo, Changjian Su and Rui Xiong [arXiv:2402.04500] math.CO math.AG math.RT

[9] coming soon ...

## LaTeX

[10] The LaTeX package TooYoung. [Github:CubicBear/TooYoung]

## Research Areas

Enumerative Geometry, Algebraic Combinatorics;
Geometric Representation Theory.