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## Personal Information

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- **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

TSINGHUA UNIVERSITY PRESS, ISBN: 9787302541646 (2019).

# 集合论、拓扑与代数初步

(An introduction to set theory, topology and algebra)

Shoumin Liu and Rui Xiong

$\begin{array}{c} 1 & 2 & 3 & 4 \\ \chi_1 \chi_2 \chi_3 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2}{(q_1 - q_2)} \chi_3 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2}{(q_1 - q_4)} \chi_3 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2 q_1}{(q_2 - q_4)} \chi_3 \end{array}$   
 $\begin{array}{c} 1 & 2 & 3 & 4 \\ \chi_1 \chi_2 \chi_4 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2}{(q_1 - q_2)} \chi_4 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2}{(q_1 - q_4)} \chi_3 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2 q_1}{(q_2 - q_4)} \chi_3 \end{array}$   
 $\begin{array}{c} 1 & 2 & 3 & 4 \\ \chi_1 \chi_3 \chi_4 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2}{(q_1 - q_3)} \chi_2 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2}{(q_1 - q_3)} \chi_1 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2 q_1}{(q_2 - q_4)} \chi_1 \end{array}$   
 $\begin{array}{c} 1 & 2 & 3 & 4 \\ \chi_2 \chi_3 \chi_4 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2}{(q_2 - q_3)} \chi_4 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2}{(q_2 - q_3)} \chi_4 \end{array} \quad \begin{array}{c} 1 & 2 & 3 & 4 \\ \hline \frac{t^2 q^2 q_1}{(q_2 - q_4)} \chi_2 \end{array}$

ADVANCES IN MATHEMATICS, Volume 442, April 2024, 109577. [arXiv:2304.07173]

# Automorphisms of the Quantum Cohomology of the Springer Resolution and Applications

Changzheng Li, Changjian Su and Rui Xiong

The diagram illustrates the construction of a 1D chain from a 2D lattice. The top part shows a 2D lattice of red '+' symbols with arrows indicating nearest-neighbor connections. The bottom part shows a 1D chain of blue '-' symbols with arrows indicating nearest-neighbor connections. The transition is indicated by a row of red '+' symbols with arrows.

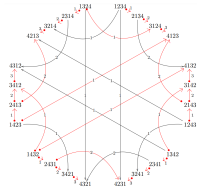
JOURNAL OF ALGEBRA, accepted, 2024

[arXiv:2205.05420]

Equivariant log-concavity and equivariant Kähler packages

Tao Gui and Rui Xiong

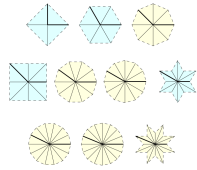
## Preprints



[arXiv:2211.06802]

### Pieri and Murnaghan–Nakayama type Rules for Chern classes of Schubert Cells

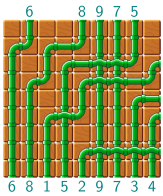
Neil J.Y. Fan, Peter L. Guo and Rui Xiong



[arXiv:2303.02409]

### Structure algebras, Hopf algebroids and oriented cohomology of a group

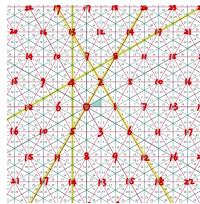
Martina Lanini, Rui Xiong and Kirill Zainoulline



[arXiv:2309.00467]

### Bumpless pipe dreams meet puzzles

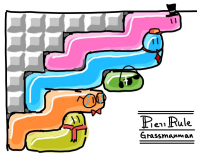
Neil J.Y. Fan, Peter L. Guo and Rui Xiong



[arXiv:2312.03965]

### On the Peterson subalgebra and its dual

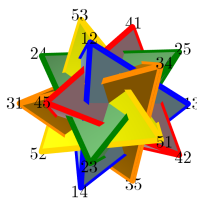
Rui Xiong, Changlong Zhong and Kirill Zainoulline



[arXiv:2402.04500]

### 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

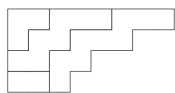


[arXiv:2404.07314]

### Motivic Lefschetz theorem for twisted Milnor hypersurfaces

Rui Xiong and Kirill Zainoulline

## L<sup>A</sup>T<sub>E</sub>X



[Github:CubicBear/TooYoung]

### The L<sup>A</sup>T<sub>E</sub>X package TooYoung



Last updated: May 29, 2024