Jihyeug Jang

Contact Information

Sungkyunkwan University
Department of Mathematics
51352B in Basic Academics Hall
2066 Seobu-ro, Jangan-gu, Suwon, Gyeonggi-do
440-746
South Korea

Phone: (+82) 1035448093
Email: jihyeugjang@gmail.com
Homepage: https://jihyeugjang.github.io

Research interest

Enumerative combinatorics and Algebraic combinatorics.

Employment

- Post-doc, Sungkyunkwan University, Mar. 2024 - present

Education

- Ph.D. in Mathematics, Sungkyunkwan University, February 2024.
  - Advisor: Jang Soo Kim
- B.S. in Mathematics, Sungkyunkwan University, February 2017.

Publications and preprints

In preparation:

1. (with Minho Song) Combinatorics of the orthogonal polynomials on the unit circle
2. (with Sylvie Corteel, Baptiste Rognerud) A trim lattice on permutation tableaux

Submitted:

1. (with Louis W. Shapiro, Minho Song) Combinatorial Reciprocity for Riordan Arrays
2. (with Mark Kempton, Sooyeong Kim, Adam Knudson, Neal Madras, Minho Song) Kemeny's constant and enumerating Braess edges in trees
3. (with Byung-Hak Hwang, Jang Soo Kim, Minho Song, U-keun Song) Refined canonical stable Grothendieck polynomials and their duals, Part 2

Published:

1. (with Byung-Hak Hwang, Jang Soo Kim, Minho Song, U-keun Song) Refined canonical stable Grothendieck polynomials and their duals, Part 1, *Advances in Mathematics*, Volume 446, (2024)
2. (with Byung-Hak Hwang, Jaeseong Oh) A combinatorial model for the transition matrix between the Specht and web bases, *Forum of Mathematics, Sigma*, Volume 11, (2023), e82
3. (with Sooyeong Kim, Minho Song) Kemeny's constant and Wiener index on trees, *Linear Algebra and its Applications*, Volume 674, (2023), Pages 230-243
4. (with Donghyun Kim, Jang Soo Kim, Minho Song, U-keun Song) Negative moments of orthogonal polynomials, *Forum of Mathematics, Sigma*, Volume 11, (2023), e22
5. (with Jang Soo Kim) Volumes of flow polytopes related to caracol graphs, *Electronic J. Combin.*, Volume 27, Issue 4 (2020), P4.21

Talks and posters

1. Refined canonical stable Grothendieck polynomials and their duals (poster), FPSAC 2023, UC Davis, California, USA, Jul 17-21, (2023)
2. Volumes of flow polytopes related to caracol graphs, Séminaire DGeCo, Sorbonne Université, France, Apr 18, (2023)
3. Negative moments of orthogonal polynomials, Journée-séminaire de combinatoire, Université Paris 13, France, Apr 11, (2023)
4. Negative moments of orthogonal polynomials (poster), 89th Séminaire Lotharingien de Combinatoire and Brenti Fest, Centro Residenziale Universitario di Bertinoro, Italy, Mar 26-29, (2023)
5. On sequences related to the pallet loading problem, AORC Monthly Seminar , Online, Jan 27, (2023)
6. On sequences related to the pallet loading problem, The 26th KIAS Workshop on Combinatorics, Shilla Stay Haeundae, Korea, Dec 20-22, (2022)
7. A combinatorial model for the transition matrix between the Specht and web bases, Physical Algebra and Combinatorics Seminar, Online, Aug 12, (2022)
8. A combinatorial model for the transition matrix between the Specht and web bases (poster), FPSAC 2022, Indian Institute of Science, Bangalore, India, Jul 18-22 (2022)
9. A combinatorial model for the transition matrix between the Specht and web bases, One-day workshop on web bases, Online, Dec 16, (2021)
10. Refined canonical stable Grothendieck polynomials and their duals, 2021 Annual Meeting on the Kangwon-Kyungki Mathematical Society, Korea, Jul 16, (2021)
11. Volumes of flow polytopes related to the caracol graphs, CanaDAM 2021 – Online Meeting, Online, May 25-28, (2021)
12. A permutation interpretation of the transition matrix between the polytabloid and web bases, 2021 KMS Spring Meeting, Online, Apr 29-30, (2021)
13. Computing volumes of flow polytopes using labeled Dyck paths, 2019 Combinatorics Workshop, Songdo, Incheon, Korea, Aug 13-15, (2019)

14. Computing volumes of flow polytopes using labeled Dyck paths, 2019 Annual Meeting on the Kangwon-Kyungki Mathematical Society, Daegu, Korea, Jun 28-30, (2019)

15. Combinatorial proof of two constant term identities, Workshop on Algebraic and Enumerative Combinatorics, Shinshu University, Japan, Jan 15-17, (2019)

Program Languages

- SageMath