# Jihyeug Jang

## **Contact Information**

Sungkyunkwan University
Department of Mathematics
32356C in Natural Science Building #2
2066 Seobu-ro, Jangan-gu, Suwon, Gyeonggi-do
440-746

Email: Homepage:

Phone:

(+82) 1035448093 4242ab@gmail.com

Homepage: https://jihyeugjang.github.io

South Korea

## Research interest

Enumerative and algebraic combinatorics.

# Education

- Ph.D. Mathematics, Sungkyunkwan University, February 2024 (expected).
  - Advisor: Jang Soo Kim
- B.A. Mathematics, Sungkyunkwan University, February 2017.

# Publications and preprints

#### Submitted:

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

## Appeared:

- 1. (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
- 2. (with Sooyeong Kim, Minho Song) Kemeny's constant and Wiener index on trees, *Linear Algebra and its Applications*, Volume 674, (2023), Pages 230-243
- 3. (with Donghyun Kim, Jang Soo Kim, Minho Song, U-keun Song) Negative moments of orthogonal polynomials, *Forum of Mathematics, Sigma*, Volume 11, (2023), e22
- 4. (with Jang Soo Kim) Volumes of flow polytopes related to caracol graphs, *Electronic J. Combin.*, Volume 27, Issue 4 (2020), P4.21

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# Talks and posters

#### **Talks**

1. Volumes of flow polytopes related to caracol graphs, Séminaire DGeCo, Sorbonne Université, France, Apr 18, (2023)

- 2. Negative moments of orthogonal polynomials, Journée-séminaire de combinatoire, Université Paris 13, France, Apr 11, (2023)
- 3. On sequences related to the pallet loading problem, AORC Monthly Seminar, Online, Jan 27, (2023)
- 4. On sequences related to the pallet loading problem, The 26th KIAS Workshop on Combinatorics, Shilla Stay Haeundae, Korea, Dec 20-22, (2022)
- 5. A combinatorial model for the transition matrix between the Specht and web bases, Physical Algebra and Combinatorics Seminar, Online, Aug 12, (2022)
- 6. A combinatorial model for the transition matrix between the Specht and web bases, One-day workshop on web bases, Online, Dec 16, (2021)
- 7. Refined canonical stable Grothendieck polynomials and their duals, 2021 Annual Meeting on the Kangwon-Kyungki Mathematical Society, Korea, Jul 16, (2021)
- 8. Volumes of flow polytopes related to the caracol graphs, CanaDAM 2021 Online Meeting, Online, May 25-28, (2021)
- 9. A permutation interpretation of the transition matrix between the polytabloid and web bases, 2021 KMS Spring Meeting, Online, Apr 29-30, (2021)
- 10. Computing volumes of flow polytopes using labeled Dyck paths, 2019 Combinatorics Workshop, Songdo, Incheon, Korea, Aug 13-15, (2019)
- 11. Computing volumes of flow polytopes using labeled Dyck paths, 2019 Annual Meeting on the Kangwon-Kyungki Mathematical Society, Daegu, Korea, Jun 28-30, (2019)
- 12. Combinatorial proof of two constant term identities, Workshop on Algebraic and Enumerative Combinatorics, Shinshu University, Japan, Jan 15-17, (2019)

#### **Posters**

- 1. Refined canonical stable Grothendieck polynomials and their duals, FPSAC 2023, UC Davis, California, USA, Jul 17-21, (2023)
- 2. Negative moments of orthogonal polynomials, 89th Séminaire Lotharingien de Combinatoire and Brenti Fest, Centro Residenziale Universitario di Bertinoro, Italy, Mar 26-29, (2023)
- 3. A combinatorial model for the transition matrix between the Specht and web bases, FPSAC 2022, Indian Institute of Science, Bangalore, India, (2022)