

Lorenzo Perrone

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Summary

I'm a second year Ph.D. student in mathematics at University of Bologna. My advisor is Riccardo Biagioli. I'm interested in problems related to Coxeter groups and algebraic combinatorics.

Academic Employment

Ph.D. student in Mathematics

Nov 2024 – Now

University of Bologna

- Advised by Riccardo Biagioli.

Education

Master's Degree in Mathematics

Sept 2020 – Mar 2024

University of Bologna

- Thesis: *Dyer's Conjecture on the Join in the Weak Order of a Coxeter Group*, Advisor prof. Riccardo Biagioli. Final grade: 110/110 cum laude.
- Erasmus+ student exchange at Universiteit van Amsterdam (UvA). Jan 2022 - Jul 2022

Bachelor's Degree in Mathematics

Sept 2017 – Oct 2020

University of Bologna

- Thesis: *Il polinomio di Tutte*, Advisor prof. Marta Morigi. Final grade: 109/110.

Teaching experience

Teaching Assistant

2025 – 2026

University of Bologna

- Course: *Arithmetic and Groups*. Degree programme: Mathematics;
- Course: *Linear Algebra and Geometry*. Degree programme: Astronomy.

Teaching Assistant

2021 – 2022

University of Bologna

- Course: *Geometry and Algebra T*. Degree programme: Mechanical Engineering;
- Course: *Geometry and Algebra T (Module 2)*. Degree programme: Chemical and Biochemical Engineering.

Talks and posters

- Talk at the summer school "Geometry, Algebra and Combinatorics of Moduli Spaces and Configurations VIII", Dobbiaco, Italy: *Computing Joins in the Weak Order of Coxeter Groups of Type B*. Jun 2026
- Talk at 7th Graduate Student Meeting in Applied Algebra and Combinatorics (GSMAAC), Bristol, United Kingdom: *Computing Joins in the Weak Order of Type B Coxeter Groups*. Apr 2026
- Talk at the 95th Séminaire Lotharingien de Combinatoire (SLC 95), Villeurbanne, France: *Computing Joins in the Weak Order of Coxeter Groups of Type B*. Mar 2026
- Talk at INcontro TRIangolare di Combinatoria Algebraica e TOPologica (INTRICATO 2025) Bo-Pi-Rm, Bologna, Italy: *On a property of inversion sets in Coxeter groups*. Nov 2025
- Poster at 37th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2025), Sapporo, Japan: *On a Conjecture of Dyer on the Join in the Weak Order of a Coxeter group*; Jul 2025
- Talk at INcontro TRIangolare di Combinatoria Algebraica e TOPologica (INTRICATO 2024) Bo-Pi-Rm, Bologna, Italy: *Dyer's Conjecture on the Join in* Nov 2024

the Weak Order of a Coxeter Group.

Languages

- Italian: mother tongue.
- English: advanced (IELTS: 7.0, Oct 2020).

Publications

On a Conjecture of Dyer on the Join in the Weak Order of a Coxeter group, *Journal of Combinatorics* 17 (4) (2026), pp. 507-525

2025

(Extended abstract in *Proceedings of the 37th International Conference on "Formal Power Series and Algebraic Combinatorics"*, July 21 - 25, 2025, Hokkaido University, Sapporo, Japan published at *Séminaire Lotharingien de Combinatoire*, vol. 93B Art. 13)

Riccardo Biagioli, **Lorenzo Perrone**