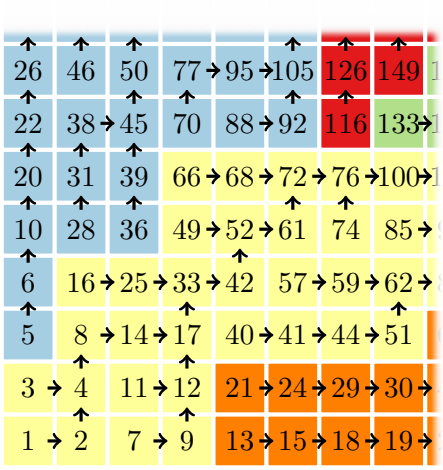
Open Positions: Geometry of Infinite Young Tableaux

NCN OPUS-30 grant • PI: Piotr Śniady • Institute of Mathematics, Polish Academy of Sciences (IMPAN), Toruń

The project. We study infinite random Young tableaux arising from the Robinson-Schensted-Knuth correspondence — a central object connecting algebraic combinatorics and representation theory. Tracing paths in such a tableau produces coloured "river territories," and the boundaries between them turn out to obey exactly the same laws as coalescing Brownian motions, a canonical model from interacting particle systems. This project will prove this connection rigorously, and explore its consequences through a combination of probability theory, representation-theoretic characters, and combinatorial structure.



Postdoctoral Researcher

Duration: 48 months, full-time employment
Salary: ≈9,700 PLN/month (brutto)
Teaching: no teaching obligations

Requirements. PhD in mathematics or related discipline. Strong background in at least two of: algebraic combinatorics, asymptotic representation theory, integrable probability, probability theory

PhD Student

Duration: 4 years

Requirements. MSc in mathematics. Strong background in algebraic combinatorics or representation theory.

To apply. Please contact `psniady@impan.pl`. Informal enquiries are welcome. Review of applications is ongoing; positions start in 2026 or 2027
More information: `https://psniady.impan.pl/jobs`