

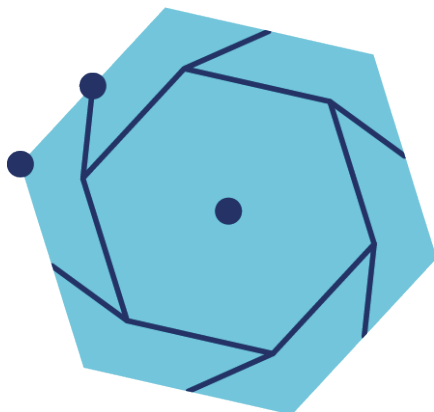
KOLKOM

KOLLOQUIUM ÜBER KOMBINATORIK

14 – 15 November 2025



**UNIVERSITÄT
BIELEFELD**



**TRR
358**

Dear combinatorialists,

It is our great pleasure to welcome you at Bielefeld University for the 42nd Colloquium on Combinatorics. The Colloquium on Combinatorics was established in 1981 and has since been held annually (with the exceptions in 2005, 2020, and 2021) in eight cities throughout Germany. This conference is today an established conference in Germany covering all areas of Combinatorics and Discrete Mathematics in a broad sense, including combinatorial aspects in Algebra, Geometry, Optimization and Computer Science.

This year there are about 60 participants. The program includes 30 contributed talks, organised in up to three parallel sessions, and four invited talks on a broad range of combinatorial topics.

Please note that there are 25-minute slots allocated for the contributed talks, which includes 20 minutes for the presentation, two minutes for discussion, and three minutes for room change.

Enjoy the conference!

Barbara Baumeister, Dirk Frettlöh and Lukas Kühne

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All **talks** will be in Gebäude X at Bielefeld University (Universitätsstr. 24, 33615 Bielefeld)

- Invited talks** : X-E0-001
- Contributed talks** : X-E0-001, X-E0-202, X-E0-212
- Coffee and snacks** : Foyer (ground floor)
- Registration desk** : Foyer (ground floor)

The easiest way to reach Bielefeld University is via the tram line 4 towards Lohmanshof. Exit at the stop Universität, the X Gebäude will be sign-posted from the tram stop.

The **registration desk** is open on Friday from 8:20 to 9:00 and on Saturday from 9:00 to 9:30.

The **dinner** will take place at the restaurant *Brauhaus Joh. Albrecht* (Hagenbruchstr. 8) on Friday at 19:00.

The restaurant can be reached by a 50-minute-walk or by tram in 25 minutes.

There will be an **informal dinner** on Thursday evening at *The Bernstein* (Niederwall 2) starting at 18:00. Feel also free to join later once you arrive in Bielefeld.

A visit to the **Sparrenburg** outside of the conference program is highly recommended.

Friday, 14 November 2025

- 08:20 - 09:00** *Registration*
08:50 - 09:00 *Opening*
09:00 - 10:00 **Karin Baur**
10:00 - 10:30 *Coffee break*
10:30 - 12:10 **Parallel sessions**
12:05 - 13:35 *Lunch*
14:00 - 15:00 **Martina Juhnke**
15:00 - 15:30 *Coffee break*
15:30 - 17:10 **Parallel sessions**
19:00 *Dinner at **Brauhaus Joh. Albrecht** (Hagenbruchstr. 8, Bielefeld)*

Saturday, 15 November 2025

- 09:30 - 10:30** **János Pach**
10:30 - 11:00 *Coffee break*
11:00 - 11:50 **Parallel sessions**
12:00 - 13:00 **Jarkko Kari**
13:00 *Lunch and farewell*

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Detailed program on Friday, 14 November 2025

Time	Section I X-E0-001	Section II X-E0-202	Section III X-E0-212
08:50 - 09:00	<i>Opening X-E0-001</i>		
09:00 - 10:00	Karin Baur Frieze patterns via surface combinatorics X-E0-001		
10:00 - 10:30	<i>Coffee break</i>		
10:30 - 10:50	Mütze	Garbe	Friedrich
10:55 - 11:15	Althöfer	Xie	Kaspers
11:20 - 11:40	Bielser	Mühlherr	Polujan
11:45 - 12:05	Natarajan	Van Werde	Rakhmonov
12:15 - 13:30	<i>Lunch</i>		
14:00 - 15:00	Martina Juhnke Monotone paths on polytopes: Positive and negative results X-E0-001		
15:00 - 15:30	<i>Coffee break</i>		
15:30 - 15:50	Winter	Klawuhn	Sagdeev
15:55 - 16:15	Degen	Krone	Hamann
16:20 - 16:40	Ramesh	Chen	van der Pol
16:45 - 17:05	Verciani	Flaszczynska	Hoster
19:00	<i>Conference dinner</i>		

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Detailed program on Saturday, 15 November 2025

Time	Section I X-E0-001	Section II X-E0-202	Section III X-E0-212
09:30 - 10:30	János Pach Colorings and embeddings of graphs X-E0-001		
10:30 - 11:00	<i>Coffee break</i>		
11:00 - 11:25 11:30 - 11:55	Rieck Cambie	Deppe Ipek	Rajasekaran Smith
12:00 - 13:00	Jarkko Kari Colorings of the two-dimensional grid with few local patterns X-E0-001		
13:00 - 14:00	<i>Lunch and Farewell</i>		

Invited talks

Karin Baur:	Frieze patterns via surface combinatorics
Martina Juhnke:	Monotone paths on polytopes: Positive and negative results
Janos Pach:	Colorings and embeddings of graphs
Jarkko Kari:	Colorings of the two-dimensional grid with few local patterns

Contributed talks

Ingo Althöfer:	On a Candidate for Divergence in a natural Collatz Variant
Kerrin Bielser:	On a Question of Katona on Intersecting Families
Stijn Cambie:	Mean subtree order and average subpath length of graphs
Lei Chen:	Highly-arc-transitive digraphs
Sebastian Degen:	The polytope of all q -rank functions
Christian Deppe:	The Minkowski Dimension and Its Connection to the Capacity of Deterministic Identification
Anna Flaszczynska:	Totally Locally Irregular Decompositions of Graphs
Chantal Friedrich:	Towards a Hilton-Milner type result of intersecting families of polynomials over a finite field
Frederik Garbe:	Asymptotically Enumerating Independent Sets in Regular k -Partite k -Uniform Hypergraphs
Matthias Hamann:	Asymptotic grid minors in infinite graphs
Elena Hoster:	Chow polynomials and Friends
Selman Ipek:	Polyhedral methods in the classical simulation of quantum circuits
Christian Kaspers:	Locally APN and k -th order sum-free functions
Lukas Klawuhn:	Designs of perfect matchings
Maximilian Krone:	Sufficient average and minimum degree conditions for the existence of highly connected subgraphs
Leonie Mühlherr:	Buildingset arrangements
Torsten Mütze:	Counterexamples to two conjectures on Venn diagrams
Abhiram Natarajan:	Partitioning Theorems for Sets of Semi-Pfaffian Sets, with Applications
Janos Pach:	Colorings and embeddings of graphs
Alexandr Polujan:	Constructing Millions of Inequivalent Quadratic APN Functions in Eight Variables
Ramar Rajasekaran:	ND Coloring Number in Graphs
Firdavs Rakhmonov:	L^p averages of the discrete Fourier transform and applications

Lakshmi Ramesh:	Intersections of translated polytopes
Christian Rieck:	Flipping odd matchings in geometric and combinatorial settings
Arsenii Sagdeev:	Infinite Families in Euclidean Ramsey Theory
Zak Smith:	Factors and powers of Hamilton cycles in the budget-constrained random graph process
Jorn van der Pol:	Turan densities for matroid basis hypergraphs
Alexander Van Werde:	Towards generalized spectral determinacy of random graphs
Francesco Verciani:	Listing faces of polytopes
Martin Winter:	Two-level polytopes and the conjectures of Mahler and Kalai
Xinyue Xie:	Counting tight Hamilton cycles in Dirac hypergraphs