The 22nd International Conference on RANDOM STRUCTURES & ALGORITHMS

4 – 8 August 2025

TU Wien, Freihaus, Wiedner Hauptstrasse 8 – 10, Vienna

1 Program Overview

	Monday, 4 Aug	Tuesday, 5 Aug	Wednesday, 6 Aug	Thursday, 7 Aug	Friday, 8 Aug
08:45 - 09:00	Opening (FH1)				
09:00 – 10:00	Karoński Lecture (FH1): Alan Frieze	Plenary talk (FH1): Svante Janson	Plenary talk (FH1): Vincent Tassion	Plenary talk (FH1): Catherine Greenhill	
10:00 - 10:10	Coffee break	Coffee break	Group photo (FH1)	Coffee break	Contributed talks
10:20 - 10:30			Coffee break		
10:30 – 11:00					Coffee break
11:00 – 12:00	Contributed talks	Contributed talks	Contributed talks	Contributed talks	Plenary talk: Will Perkins
12:00 – 12:15	Lunch	Lunch	Lunch	Lunch	Closing (FH1)
12:15 – 14:00	Lunch	Lunch	Lunch	Lunch	Lunch
14:00 – 15:00	Plenary talk (FH1): Lisa Sauermann	Plenary talk (FH1): Shoham Letzter		Plenary talk (FH1): Mehtaab Sawhney	
15:00 – 15:30	Coffee break	Coffee break		Coffee break	
15:30 – 17:00	Contributed talks		Free afternoon	Contributed talks	Departure
17:00 – 17:30	Continuaca talks	Random run	Tice and moon	Continuited talks	Departure
18:00 – 20:00	Reception (drinks)				
19:00 – 22:00				Conference dinner	

2 Detailed Information and Program

REGISTRATION DESK

In the foyer of FH1, first floor Monday, 4 August 2025, 08:30 – 10:30 and 12:00 – 14:00 Tuesday, 5 August 2025, 08:30 – 10:30 In urgent cases call +43 1 58801 10401

Upon registration, participants will receive their conference materials, name badges, and Mensa tickets.

The name badge serves as your entry pass to all events organized as part of the conference.

CONFERENCE PROGRAM

The conference program is available on the website

https://www.dmg.tuwien.ac.at/rsa2025/

and at the lecture rooms.

All lecture rooms are in the first and second floor of the Freihaus of TU Wien, Wiedner Hauptstrasse 8 – 10.

LUNCH

At the **MENSA**, Freihaus of TU Wien, Tower B, 1st floor Monday, 4 August 2025 – Thursday, 7 August 2025, 12:00 – 14:00 Friday, 8 August 2025, 12:15 – 14:00

Please use your Mensa Tickets.

RECEPTION (DRINKS)

Kuppelsaal of the TU Wien Main Building, Karlsplatz 13 Monday, 4 August 2025, 18:00-20:00

RANDOM RUN

Jahnwiese, Wasnergasse, 1200 Wien Tuesday, 5 August 2025, 17:00 – 17:30

Please confirm your participation at the registration desk and pick up your Number.

GROUP PHOTO

Lecture Hall FH1 Wednesday, 6 August 2025, 10:00 – 10:10

CONFERENCE DINNER

Fuhrgassl-Huber, Neustift am Walde 68, 1190 Wien Thursday, 7 August 2025, 19:00 – 22:00

DEPARTURE / TRANSPORT

Bus transportation will be provided between TU Wien and the Fuhrgassl-Huber Restaurant.

- Departure from TU Wien: 18:30
- Return transfers from Fuhrgassl-Huber Restaurant will be available at 22:00, 22:15, and 22:30.

WLAN

You can either use **eduroam** or the WLAN provided by the conference material.

Monday, 4 August	Room FH1	Room FH2	Room FH4	Room FH7	Room SemA	Room SemB	Room FH3
08:45 - 09:00	Opening						
09:00 – 10:00	Karoński lecture: Alan Frieze, Loose Hamilton Cycles in r -Uniform Hypergraphs						
10:00 - 10:30	Coffee break						
10:30 – 10:55	Xiaoyu He, Polynomial to Exponential Transi- tion in 3-uniform Ram- sey numbers	Antônio Kaique, Rain- bow Path Covers of Sparse Random Graphs	Jakob Hofstad, Two-Point Concentration of the Independence Number of $G_{n,m}$	Silas Rathke, On the maximum diameter of <i>d</i> -dimensional simplicial complexes	Milos Stojakovic, Phantom positional games	Yaakov Malinovsky, Hitting primes by dice rolls	Tyler Helmuth, The Arboreal Gas
11:00 – 11:25	Andrew Lane, General- ized Ramsey numbers via conflict-free hyper- graph matchings	Stijn Cambie, Determining $(k; g, d)$ -cages and estimating their order	Vincent Pfenninger, Central limit theorems in sparse binomial random graphs	Asaf Cohen Antonir, Weak saturation and collapsible complexes in a random graph	Anand Srivastav, Recent Advances in the Maker-Breaker Subgraph Game	Elad Aigner-Horev, Resilience of Rademacher chaos of low degree	Clayton Mizgerd, Chromatic number of random triangle-free graphs
11:30 – 11:55	Shagnik Das, Odd- Ramsey numbers of spanning structures	Ella Williams, Embedding trees using minimum and maximum degree conditions	Wojciech Michalczuk, Normal approximation for subgraph count in random hypergraphs	Francesco Di Braccio, The Zarankiewicz problem on tripartite graphs	Yannick Mogge, Seeing is not believing in limited visibility cops and robbers	Aleksandr Greben- nikov, Geometric Littlewood-Offord problems via lattice	Jacob Richey, Patterns and statistics in shifts of finite type
12:00 – 14:00	Lunch						
14:00 – 15:00	Plenary talk: Lisa Sauermann, Asymptotically-tight packing and covering						
15:00 – 15:30	Coffee break						
15:30 – 15:55	Jozsef Solymosi, Ran- domness in extremal hypergraph construc- tions	Yangyang Cheng, An Exact Ore condition for Hamilton cycles in ori- ented graphs	Fabian Burghart, F - Factors in random graphs	Xusheng Zhang, Understanding phase transition of one-sample learning through k-SAT	Michael Fuchs, The depth of the most recent common ancestor of a random sample	Gaurav Kucheriya, Acyclic oriented graphs with unique dipath property	Anna Geisler, Universal behaviour of majority bootstrap percolation on high
16:00 – 16:25	Oleg Pikhurko, Constructions of Turán systems that are tight up to a multiplicative	Nicolás Sanhueza- Matamala, A hy- pergraph bandwidth theorem	Mihir Sanjeev Neve, Ro- bustness of the Sauer– Spencer Theorem	Arnab Chatterjee, Belief Propagation Guided Decimation on random k-XORSAT	Valeriia Kotelnykova, A law of the iterated logarithm for random recursive trees	Elizaveta Popova, On the maximal degree of induced subgraphs of product graphs	Tomasz Przybylowski, Locating the origin of a random walk
16:30 – 16:55	Hung-Hsun Hans Yu, An Entropic Proof of Turán's Theorem	Arjun Ranganathan, Tight Hamiltonicity in Hypergraphs with Dichotomous Degrees	Sylwia Antoniuk, Powers of a Hamilton cycle in a randomly augmented graph	Wesley Pegden, On Minimum Cost Rain- bow Structures	Tsan-Cheng Yu, The B2 index of galled trees	Luke Collins, Chords in longest cycles	Baptiste Louf, Counting with random walks
17:00 – 17:25	Ting-Wei Chao, A generalization of Shearer's inequality	Camila Zárate-Guerén, Positive codegree thresholds for Hamilton cycles in hypergraphs	Tadej Petar Tukara, All transition points for clique factors in ran- domly perturbed graphs	Pavel Zakharov, Walk- SAT is linear on ran- dom 2-SAT	Roy Deutch, Topologi- cal Patterns in Trivalent Trees	Fei Peng, An improved bound on Seymour's second neighborhood conjecture	Tamas Makai, Limit Laws for Critical Dis- persion on Complete Graphs
18:00 - 20:00	Reception (drinks)						

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Tuesday, 5 August	Room FH1	Room FH2	Room FH4	Room FH7	Room SemA	Room SemB	Room FH3	
09:00 – 10:00	Plenary talk: Svante Janson, The number of descendants in a ran- dom directed acyclic							
10:00 - 10:30	Coffee							
10:30 – 10:55	Mykhaylo Tyomkyn, Unavoidable subgraphs in digraphs with large out-degrees	Aravind Srinivasan, Dependent randomized rounding	Nick Christo, Realizability of Hypergraphs and High-Dimensional Contingency Tables	Dominik Beck, Analysing the Mo- ments of the Determi- nant of a Random	Zixuan Xu, Even degeneracy of a Random Graph	Zoltán Lóránt Nagy, resolution of the no- $(k+1)$ -in-line problem when k is not small	Ferenc Bencs, Land- scape of the random cluster model on regu- lar large-girth graphs	
11:00 – 11:25	Lior Gishboliner, Disperse Hypergraphs	Levente Szemerédi, Bi- section width of regu- lar graphs - an improve- ment via local	Jaehyeon Seo, Counting homomorphisms in antiferromagnetic graphs via Lorentzian	Eoin Hurley, Random Cycle Factors	Peleg Michaeli, Monochromatic matchings in almost- complete and random	Benedek Kovács, The no- $(k+1)$ -in-line problem for small values of k	Péter Csikvári, Random cluster model on regu- lar graphs: combinato- rial approximation	
11:30 – 11:55	Jan Petr, Temperate families	Mikhail Skopenkov, Phase transitions for quantum walks	Stephan Wagner, Subtrees of trees and graphs: recent develop- ments and open	Janosch Ruff, On randomised distributed colouring of hyperbolic random graphs	Felix Joos, On the Prague dimension of sparse random graphs	Carl Schildkraut, Equiangular lines and large multiplicity of fixed second eigenvalue	Márton Borbényi, Random cluster model on random regular graphs when $1 \le q \le 2$	
12:00 - 14:00	Lunch							
14:00 – 15:00	Plenary talk: Shoham Letzer, Splitting regular graphs into few isomor- phic parts							
15:00 – 15:30	Coffee break							
15:30 - 17:00								
17:00 – 17:30	Random run							

Wednesday, 6 August	Room FH1	Room FH2	Room FH4	Room FH7	Room SemA	Room SemB	Room FH3
09:00 – 10:00	Plenary talk: Vincent Tassion, Noise sensitiv- ity via differential in- equalities						
10:00 - 10:10	Group photo						
10:10 - 10:30	Coffee break						
10:30 – 10:55	Benjamin Sudakov, Long induced path in $K_{s,s}$ -free graph	Thomas Fischer, Fractional vs. expectation threshold: an overview	John Sylvester, Exploration of Random Temporal Graphs	Michael C. Wigal, On packing edge disjoint cliques in graphs	Frederik Garbe, Asymptotically enu- merating independent sets in regular	Alexander Gnedin, A Random Graph Growth Model	Gabriel Istrate, Conway's Army Percolation
11:00 – 11:25	Michael Anastos, Nearly spanning cycle in the percolated hyper- cube	Stepan Vakhrushev, The threshold of a k-gon's triangulations	Sofiya Burova, Temporal Stochastic Block Model	Amedeo Sgueglia, On Kotzig's conjecture in random graphs	Mihalis Sarantis, On the number of antichains in $\{0, 1, 2\}^n$	Nikolaos Fountoulakis, Majority dynamics with more than two states on a random	Charles Burnette, Extending the Affirmative Action Problem: mixing numbers and
11:30 – 11:55	Sahar Diskin, Cycle lengths in the perco- lated hypercube	Nina Kamcev, Finding trees in a jungle	Julien Portier, Monotonicity and Sprinkling properties of random regular graphs	Thomas Lesgourgues, Graph decomposition via refined absorption: when Erdős meets	Ronen Wdowinski, Counting independent sets in percolated graphs via the Ising	Małgorzata Sulkowska, Modularity of preferen- tial attachment graphs	Kostas Zampetakis, The Random k-SAT Gibbs Uniqueness Threshold Revisited

Thursday, 7 August	Room FH1	Room FH2	Room FH4	Room FH7	Room SemA	Room SemB	Room FH3
09:00 – 10:00	Plenary talk: Catherine Greenhill, The switch- ing method in applica- tions expected and						
10:00 - 10:30	Coffee break						
10:30 – 10:55	Aleksa Milojevic, Set- families with many dis- joint pairs	Jakub Przybyło, On homogeneous substruc- tures in random ordered uniform matchings	Walaa Asakly, Bell numbers, Stirling num- bers and set partitions	Alberto Espuny Díaz, Factors and powers of Hamilton cycles in the budget-constrained	Kyprianos-Iason Prodromidis, Polynomial mixing of the critical Ising model on sparse	Patrick Bennett, On the generalized Ramsey numbers $r(K_{n,n}, C_{2k}, 3)$	Sean Longbrake, On the Number of <i>H</i> -Free Hypergraphs
11:00 – 11:25	Zach Hunter, Sharp bounds for a question of Daykin and Erdős	Tomasz Kościuszko, Schur-like numbers and a lemma of Shearer	Cyril Banderier, Universal limit laws associated to phase transitions in combinatorial	Zak Smith, Clique covers in the budget-constrained random graph process	Marcus Pappik, Fast and Slow Mixing of the Kawasaki Dynamics on Bounded-Degree	Andrea Freschi, Ramsey problems for tilings in graphs	Igor Balla, Equiangu- lar lines via improved eigenvalue multiplicity
11:30 – 11:55	Allan Flower, Weighted intersecting families	Ruben Ascoli, Rational values of the weak saturation limit	Katarzyna Rybarczyk, Subsequent elements in Mallows permutations	Silvia Onofri, Can we generate randomness from stock market data?	Ritesh Goenka, Cut- off for generalized Bernoulli-Laplace urn models	Jan Volec, Flag algebras for fixed-size structures	Adrian Beker, Limiting spectral laws for sparse random circulant matrices
12:00 – 14:00	Lunch						
14:00 – 15:00	Plenary talk: Mehtaab Sawhney, Local limit theorems in combina- torics and applications						
15:00 – 15:30	Coffee break						
15:30 – 15:55		Sayan Gupta, On the Ramsey number of book and odd cycles	Anna Margarethe Limbach, Graphon branching processes and fractional isomorphism	Nicolas Privault, Normal approximation of subgraph counts in the Poisson and binomial	Micha Christoph, Universality for transversal Hamilton cycles in random graphs	Leticia Mattos, On the number of sets with small sumset	Candida Bowtell, De- composing random Latin squares into transversals
16:00 – 16:25		Jun Yan, Ramsey numbers of trees	Anda Skeja, Graphon- Based Information Measures for Multiplex Graphs	Grzegorz Serafin, Small subgraphs count in random intersection graph	Grzegorz Ryn, Two- colorability of random non-uniform hyper- graphs	João Pedro Marciano, The independence number of random Cayley graphs and	Alp Müyesser, On Graham's rearrangement conjecture
16:30 – 16:55		Kyriakos Katsamaktsis, 2-round Ramsey games in random graphs for cycles	Eero Räty, First-order convergence results on small permutation classes	Matas Šileikis, The up- per tail of star counts in sparse random graphs	Niall Smith, Discrep- ancy of Hamilton Cy- cles in Random Sub- graphs	Lander Verlinde, The typical structure of sets with bounded sumset	Teodor Petrov, Almostfull transversals in equi-n-squares
17:00 – 17:25		Noam Feinstein, Improved Constructions for Ramsey Multiplicities	Laurentiu Ploscaru, Distinct Degrees and Homogeneous Sets	Xiao Fang, Normal Approximation for Exponential Random Graphs	Hillel Raz, Proportional Edge-Colorings	Anubhab Ghosal, On the largest <i>k</i> -product-free subsets of the alternating groups.	Kalina Petrova, Cameron's conjec- ture on random Latin squares
19:00 – 22:00	Conference dinner						

Friday, 8 August	Room FH1	Room FH2	Room FH4	Room FH7	Room SemA	Room SemB
09:00 – 09:25	Gregory Sorkin, Progress in semi- random graphs and hypergraphs	Richard Lang, Simultaneous edge-colourings	Mark Huber, Exact sampling from proper colorings in linear time with colors linear in	Matija Pasch, Robust- ness of Geometric In- homogeneous Random Graphs	Marcus Kühn, The Hypergraph Removal Process	Tássio Naia, Canoni- cal Ramsey numbers of even cycles
09:30 – 09:55	Michael Molloy, An improved bound for the List Colouring Conjecture	Alexander Clifton, 3-Neighbor bootstrap percolation on two- dimensional grids	Zbigniew Golebiewski, Boltzmann Sampling of Directed Acyclic Graphs	Leon Schiller, Testing Thresholds and Spec- tral Properties of High- Dimensional	He Guo, Semi-random greedy independent set algorithm	Patrick Morris, A sparse canonical van der Waerden theorem
10:00 – 10:25	Lukas Michel, New bounds for linear ar- boricty and related problems	Eva-Maria Hainzl, Asymptotic normality of pattern occurrences in random maps	Charilaos Efthymiou, On sampling two spin models using the local connective constant	Zhihan Jin, Colour- ing random Hasse diagrams and box- Delaunay graphs	Simona Boyadzhiyska, Almost-perfect colorful matchings in three- edge-colored	Robert Hancock, Orientation Ramsey thresholds
10:30 - 11:00	Coffee					
11:00 – 12:00	Plenary talk: Will Perkins, The Evolu- tion of Triangle-Free Graphs					
12:00 – 12:15	Closing					
12:15 – 14:00	Lunch					
14:00	Departure					