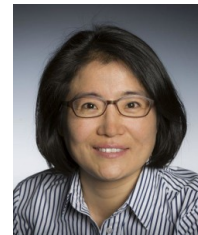


# Curriculum Vitae of Mihyun KANG

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Graz University of Technology  
Institute of Discrete Mathematics  
Steyrergasse 30, 8010 Graz, Austria  
<https://www.math.tugraz.at/~kang>  
ORCID ID: 0000-0001-8729-2779



## Research Fields

Combinatorics, Discrete Probability, Algorithms

## Academic Positions and Qualification

- since Jan 2012 Full Professor, Graz University of Technology (TU Graz), Austria
- Apr–Sep 2011 Acting Professor, University of Munich (LMU), Germany
- 2008–2011 Heisenberg Fellow of German Research Foundation (DFG),  
Free University Berlin, Germany;  
New York University, USA;  
University of Oxford, UK
- 2001–2008 Postdoc/Privatdozentin, Humboldt University of Berlin (HU), Germany
- Jul 2007 Habilitation in Computer Science, Humboldt University of Berlin, Germany
- Aug 2001 PhD in Mathematics, Korea Advanced Institute of Science and Technology (KAIST)

## Honours and Awards

- 2025 Research Member of Simons Laufer Mathematical Sciences Institute
- 2023 Visiting Research Fellow of Merton College, University of Oxford
- 2022 Visiting Scientist of Simons Institute for the Theory of Computing, UC Berkeley
- 2019 Friedrich Wilhelm Bessel Research Award of Alexander von Humboldt Foundation
- since 2016 Member of the International Mathematical Union (IMU) Circle
- 2015 Special Contribution Award, Korean Mathematical Society
- 2008 Heisenberg Fellowship of German Research Foundation

## Editorial Activities

- since 2020 Editorial Board Member of *Random Structures & Algorithms*
- since 2020 Editorial Board Member of *Combinatorial Theory*
- since 2019 Editorial Board Member of *Annals of Combinatorics*
- since 2018 Series Editor of *Mathematik Kompakt* – Springer
- since 2013 Editor of *Online Journal of Analytic Combinatorics*
- 2012–2023 Editor-in-Chief of *Discrete Mathematics & Theoretical Computer Science*
- 2011–2016 Associate Editor of *SIAM Journal on Discrete Mathematics*

# Curriculum Vitae of Mihyun KANG

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## Research Grants

2024–2028	FWF SFB “Discrete random structures: enumeration and scaling limits”, Subproject P5 “Phase transitions in random combinatorial structures”
2024–2028	FWF doc.funds “Discrete Mathematics in Teams”, Topic 6 “Bootstrap percolation in high-dimensional product graphs”; Topic 8 “Expected complexity of topological summaries”
2023–2026	Austrian-German joint project “Sparse random combinatorial structures”
2018–2022	Austrian-German DACH-project “Random graphs: cores, colourings and contagion”
2015–2024	FWF Doctoral Program “Discrete Mathematics” (Phases II and III), Subproject 15 “Random graphs on a surface”
2015–2019	FWF project “Asymptotic properties of graphs on a surface”
2014–2017	FWF project “Phase transitions and critical phenomena in random graphs”
2011–2014	DFG project “Phase transitions in random graphs”

## Selected Committees

- Flajolet Prize Committee, since 2023
- International Oversight Committee of Conference on Random Structures & Algorithms, since 2022
- Program Committee: CanaDAM 2025, SODA 2020/2009, AofA 2020/2016/2014
- Organising Committee/Co-organiser:
  - 22nd International Conference on Random Structures & Algorithms 2025
  - Oberwolfach Workshop on Random Graphs 2023
  - Banff Workshop on Random Graphs and Statistical Inference (virtual) 2021
  - European Conference on Combinatorics, Graph Theory and Applications (Eurocomb) 2017
  - International Congress of Mathematicians 2014

## Selected Plenary/Keynote/Invited Talks

(Link to the list of all invited talks: <https://www.math.tugraz.at/~kang/talks.pdf>)

- 31st British Combinatorial Conference, Cardiff University, UK, 2026
- SLMATH Introductory Workshop - Graph Theory: Extremal, Probabilistic and Structural, 2025
- 20th International Conference on Random Structures & Algorithms, Gniezno, Poland, 2022
- Rényi 100, Section Random Graphs and Networks II, Budapest, Hungary, 2022
- 46th Intl. Workshop on Graph-Theoretic Concepts in Computer Science (virtual), Leeds, UK, 2020
- 29th Conference on Analysis of Algorithms, Uppsala, Sweden, 2018
- 27th Conference on Formal Power Series and Algebraic Combinatorics, KAIST, Korea, 2015
- Erdős Centennial, Section Random Discrete Structures, Budapest, Hungary, 2013

# Curriculum Vitae of Mihyun KANG

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## Selected Publications

(Link to the list of all publications: <https://www.math.tugraz.at/~kang/papers.pdf> )

- S. Diskin, J. Erde, M. Kang, and M. Krivelevich, Isoperimetric inequalities and supercritical percolation on high-dimensional product graphs, *Combinatorica* 44 (2024), 741-784.
- J. Erde, M. Kang, and M. Krivelevich, Expansion in supercritical random subgraphs of the hypercube and its consequences, *Annals of Probability* 51 (2023), 127-156.
- M. Kang and M. Misethan, Concentration of maximum degree in random planar graphs, *J. Combin. Theory Ser. B* 156 (2022), 310-342.
- J. Erde, M. Kang, and M. Krivelevich, Large complete minors in random subgraphs, *Combinatorics, Probability and Computing* 30 (2021), 619-630.
- N. Fountoulakis, M. Kang, and T. Makai, Resolution of a conjecture on majority dynamics: rapid stabilisation in dense random graphs, *Random Structures & Algorithms* 57 (2020), 1134-1156.
- M. Kang, M. Moßhammer, and P. Sprüssel, Phase transitions in graphs on orientable surfaces, *Random Structures & Algorithms* 56 (2020), 1117-1170.
- O. Cooley, N. Del Giudice, M. Kang, and P. Sprüssel, Vanishing of cohomology groups of random simplicial complexes, *Random Structures & Algorithms* 56 (2020), 461-500.
- C. Dowden, M. Kang, and M. Krivelevich, The genus of the Erdős-Rényi random graph and the fragile genus property, *Random Structures & Algorithms* 56 (2020), 97-121.
- A. Coja-Oghlan, O. Cooley, M. Kang, and K. Skubch, Core forging and local limit theorems for the  $k$ -core of random graphs, *Journal of Combinatorial Theory, Series B* 137 (2019), 178-231.
- O. Cooley, M. Kang, and C. Koch, The size of the giant high-order component in random hypergraphs, *Random Structures & Algorithms* 53 (2018), 238-288.
- M. Behrisch, A. Coja-Oghlan, and M. Kang, Local limit theorems for the giant component of random hypergraphs, *Combinatorics, Probability and Computing* 23 (2014), 331-366.
- M. Kang, W. Perkins, and J. Spencer, The Bohman-Frieze process near criticality, *Random Structures & Algorithms* 43 (2013), 221-250.
- M. Kang and T. Łuczak, The two critical phase of a random planar graph, *Transactions of the American Mathematical Society* 364 (2012), 4239-4265.
- M. Kang and C. McDiarmid, Random unlabelled graphs containing few disjoint cycles, *Random Structures & Algorithms* 38 (2011), 174-204.
- M. Boudirsky, É. Fusy, M. Kang, and S. Vigerske, Boltzmann samplers, Pólya theory and cycle pointing, *SIAM Journal on Computing* 40 (2011), 721-769.
- M. Behrisch, A. Coja-Oghlan, and M. Kang, The order of the giant component of random hypergraphs, *Random Structures & Algorithms* 36 (2010), 149-184.
- M. Kang and M. Loebl, The enumeration of planar graphs via Wick's theorem, *Advances in Mathematics* 221 (2009), 1703-1724.
- M. Kang and T. Seierstad, The critical phase for random graphs with a given degree sequence, *Combinatorics, Probability and Computing* 17 (2008), 67-86.
- M. Boudirsky, M. Kang, M. Löffler, and C. McDiarmid, Random cubic planar graphs, *Random Structures & Algorithms* 30 (2007), 78-94.