

LIST OF PUBLICATIONS

BHARGAV NARAYANAN

Threshold Phenomena

1. *A counterexample to a directed KKL inequality*, 2022, Submitted. With Quentin Dubroff and Shivam Nadimpalli.
<https://arxiv.org/abs/2210.02035>
2. *Down-set thresholds*, 2021, **Random Structures & Algorithms**. With Benjamin Gunby and Xiaoyu He.
<https://arxiv.org/abs/2112.08525>
3. *The threshold for the square of a Hamilton cycle*, 2020, **Proceedings of the American Mathematical Society**, 149. With Jeff Kahn and Jinyoung Park.
<https://doi.org/10.1090/proc/15419>
4. *Thresholds versus fractional expectation-thresholds*, 2019, **Annals of Mathematics**, 194. With Keith Frankston, Jeff Kahn and Jinyoung Park.
<https://doi.org/10.4007/annals.2021.194.2.2>
5. *Sharp thresholds for nonlinear Hamiltonian cycles in hypergraphs*, 2019, **Random Structures and Algorithms**, 57. With Mathias Schacht.
<https://doi.org/10.1002/rsa.20919>

Topological Combinatorics

6. *Simplicial homeomorphs and trace-bounded hypergraphs*, 2020, **Discrete Analysis**, 2022:6. With Jason Long and Corrine Yap.
<https://doi.org/10.19086/da.36647>
7. *A universal exponent for homeomorphs*, 2020, **Israel Journal of Mathematics**, 243. With Peter Keevash, Jason Long and Alex Scott.
<https://doi.org/10.1007/s11856-021-2156-7>
8. *Disproportionate division*, 2019, **Bulletin of the London Mathematical Society**, 52. With Logan Crew and Sophie Spirkl.
<https://doi.org/10.1112/blms.12368>
9. *Spanning surfaces in 3-graphs*, 2018, **Journal of the European Mathematical Society**, 24. With Agelos Georgakopoulos, John Haslegrave and Richard Montgomery.
<https://doi.org/10.4171/JEMS/1101>

Symmetry in Extremal Set Theory

10. *On symmetric intersecting families of vectors*, 2019, **Combinatorics, Probability and Computing**, 30. With Sean Eberhard, Jeff Kahn and Sophie Spirkl.
<https://doi.org/10.1017/S0963548321000079>
11. *On symmetric intersecting families*, 2018, **European Journal of Combinatorics**, 86. With David Ellis and Gil Kalai.
<https://doi.org/10.1016/j.ejc.2020.103094>
12. *On regular 3-wise intersecting families*, 2017, **Proceedings of the American Mathematical Society**, 146. With Keith Frankston and Jeff Kahn.
<https://doi.org/10.1090/proc/14153>
13. *On symmetric 3-wise intersecting families*, 2016, **Proceedings of the American Mathematical Society**, 145. With David Ellis.
<https://doi.org/10.1090/proc/13452>

Statistical Physics Models

14. *Diffusion on graphs is eventually periodic*, 2017, **Journal of Combinatorics**, 10. With Jason Long.
<https://doi.org/10.4310/JOC.2019.v10.n2.a3>
15. *Coalescence on the real line*, 2016, **Transactions of the American Mathematical Society**, 371. With Paul Balister, Béla Bollobás and Jonathan Lee.
<https://doi.org/10.1090/tran/7391>
16. *Line percolation*, 2015, **Random Structures and Algorithms**, 52. With Paul Balister, Béla Bollobás and Jonathan Lee.
<https://doi.org/10.1002/rsa.20755>

Discrete Probability

17. *Reconstructing random pictures*, 2022, Submitted. With Corrine Yap.
<https://arxiv.org/abs/2210.09410>
18. *Friendly bisections of random graphs*, 2021, **Communications of the American Mathematical Society**, 2. With Asaf Ferber, Matthew Kwan, Ashwin Sah and Mehtaab Sawhney.
<https://arxiv.org/abs/2105.13337>
19. *Slowdown for the geodesic-biased random walk*, 2019, **Electronic Communications in Probability**, 24. With Mikhail Beliaev, Petr Chmél and Jan Petr.
<https://doi.org/10.1214/19-ECP276>
20. *Exceptional graphs for the random walk*, 2018, **Annales de l'Institut Henri Poincaré**, 56. With Juhan Aru, Carla Groenland, Tom Johnston, Alex Roberts and Alex Scott.
<https://arxiv.org/abs/1805.06277>
21. *Reconstructing random jigsaws*, 2017, **Multiplex and Multilevel Networks**, Oxford University Press. With Paul Balister and Béla Bollobás.
<https://doi.org/10.1093/oso/9780198809456.001.0001>

22. *Balancing sums of random vectors*, 2016, **Discrete Analysis**, 2018:4. With Juhan Aru, Alex Scott and Ramarathnam Venkatesan.
<https://doi.org/10.19086/da.3108>
23. *Connections in randomly oriented graphs*, 2015, **Combinatorics, Probability and Computing**, 27 (Special Oberwolfach Issue).
<https://doi.org/10.1017/S0963548316000341>

Graph Theory

24. *Subgraphs of large connectivity and chromatic number*, 2020, **Bulletin of the London Mathematical Society**, 54. With António Girão.
<https://doi.org/10.1112/blms.12569>
25. *Long cycles in Hamiltonian graphs*, 2017, **Israel Journal of Mathematics**, 229. With António Girão and Teeradej Kittipassorn.
<https://doi.org/10.1007/s11856-018-1798-6>
26. *The number of hypergraphs without linear cycles*, 2017, **Journal of Combinatorial Theory, Series B**, 134. With József Balogh and Jozef Skokan.
<https://doi.org/10.1016/j.jctb.2018.07.003>
27. *The multiplication table problem for bipartite graphs*, 2014, **Combinatorica**, 37. With Julian Sahasrabudhe and István Tomon.
<https://doi.org/10.1007/s00493-016-3322-0>
28. *Disjoint induced subgraphs of the same order and size*, 2014, **European Journal of Combinatorics**, 49. With Béla Bollobás, Teeradej Kittipassorn and Alex Scott.
<https://doi.org/10.1016/j.ejc.2015.03.005>

Ramsey Theory

29. *Turán theorems for unavoidable patterns*, 2019, **Mathematical Proceedings of the Cambridge Philosophical Society**, 172. With António Girão.
<https://doi.org/10.1017/S030500412100027X>
30. *An improved lower bound for Folkman's theorem*, 2017, **Bulletin of the London Mathematical Society**, 49. With József Balogh, Sean Eberhard, Andrew Treglown and Adam Wagner.
<https://doi.org/10.1112/blms.12058>
31. *Induced subgraphs with many distinct degrees*, 2016, **Combinatorics, Probability and Computing**, 28. With István Tomon.
<https://doi.org/10.1017/S0963548317000256>
32. *Ramsey graphs induce subgraphs of many different sizes*, 2016, **Combinatorica**, 39. With Julian Sahasrabudhe and István Tomon.
<https://doi.org/10.1007/s00493-017-3755-0>
33. *Approximations to m -coloured complete infinite hypergraphs*, 2013, **Journal of Graph Theory**, 80. With Teeradej Kittipassorn.
<http://doi.org/10.1002/jgt.21853>

34. *A canonical Ramsey theorem for exactly m -coloured complete subgraphs*, 2013, **Combinatorics, Probability and Computing**, 23. With Teeradej Kittipassorn.
<https://doi.org/10.1017/S0963548313000503>
35. *Exactly m -coloured complete infinite subgraphs*, 2013, **Journal of Combinatorial Theory, Series B**, 106.
<https://doi.org/10.1016/j.jctb.2014.01.008>

Extremal Combinatorics

36. *Antichain codes*, 2022, Submitted. With Benjamin Gunby, Xiaoyu He and Sam Spiro.
<https://arxiv.org/abs/2212.08406>
37. *Counting independent sets in regular hypergraphs*, 2020, **Journal of Combinatorial Theory, Series A**, 180. With József Balogh and Béla Bollobás.
<https://doi.org/10.1016/j.jcta.2021.105405>
38. *Product-free sets in the free semigroup*, 2018, **European Journal of Combinatorics**, 83. With Imre Leader, Shoham Letzter and Mark Walters.
<https://doi.org/10.1016/j.ejc.2019.103003>
39. *Catching a fast robber on the grid*, 2015, **Journal of Combinatorial Theory, Series A**, 152. With Paul Balister, Béla Bollobás and Amy Shaw.
<https://doi.org/10.1016/j.jcta.2017.06.009>
40. *Transference for the Erdős–Ko–Rado theorem*, 2014, **Forum of Mathematics, Sigma**, 3. With József Balogh and Béla Bollobás.
<https://doi.org/10.1017/fms.2015.21>
41. *On the stability of the Erdős–Ko–Rado theorem*, 2014, **Journal of Combinatorial Theory, Series A**, 137. With Béla Bollobás and Andrei Raigorodskii.
<https://doi.org/10.1016/j.jcta.2015.08.002>
42. *Separating path systems*, 2013, **Journal of Combinatorics**, 5. With Victor Falgas-Ravry, Teeradej Kittipassorn, Dániel Korándi and Shoham Letzter.
<https://doi.org/10.4310/JOC.2014.v5.n3.a4>

Theoretical Computer Science

43. *Applications of random algebraic constructions to hardness of approximation*, 2021, **Israel Journal of Mathematics**, to appear, (extended abstract in **FOCS**, 62). With Boris Bukh and Karthik C. S.
<https://doi.ieeecomputersociety.org/10.1109/FOCS52979.2021.00032>
44. *Coppersmith’s lattices and focus groups: an attack on small-exponent RSA*, 2020, **Journal of Number Theory**, 222. With Steve Miller and Ramarathnam Venkatesan
<https://doi.org/10.1016/j.jnt.2021.01.002>