

Alexey Pokrovskiy | C.V.

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Education

London School of Economics <i>PhD in mathematics</i> Supervisors: Prof Jan van den Heuvel and Prof Jozef Skokan Thesis title: "Graph partitions, powers and other extremal problems"	London 2009–2013
University of Cambridge <i>MMath, with distinction</i>	Cambridge 2008–2009
University of Cambridge <i>BA in mathematics, first class honours</i>	Cambridge 2005–2008

Employment

University College London <i>Lecturer</i>	London 2020–present
Birkbeck <i>Lecturer</i>	London 2018–2020
ETH Zürich <i>Postdoctoral researcher</i> Adviser: Prof Benjamin Sudakov	Zürich 2015–2018
Free University of Berlin <i>Postdoctoral researcher</i> Adviser: Prof Tibor Szabó	Berlin 2013–2015

Prizes

2019 European Combinatorics Prize
Awarded jointly with Richard Montgomery

Invited conference talks

Workshop on Probabilistic and Extremal Combinatorics <i>"Latin Squares and Rainbow Subgraphs"</i>	Harvard 07/02/2018
British Mathematical Colloquium <i>"Ramsey goodness of paths"</i>	Bristol 22/03/2016
2015 London Colloquia in Combinatorics <i>"Connectedness in tournaments"</i>	London 14/05/2015
Annual Berlin-Poznań Seminar <i>"Calculating Ramsey numbers by partitioning coloured graphs"</i>	Hamburg 23/05/2014

Accepted papers

- M. Bucić, M. Kwan, A. Pokrovskiy, B. Sudakov, T. Tran, A. Wagner** Israel. J. Math.
+ “Nearly-linear monotone paths in edge-ordered graphs” Accepted
- M. Bucić, M. Kwan, A. Pokrovskiy, B. Sudakov** Int. Math. Res. Notices
+ “Halfway to Rota’s basis conjecture” Accepted
- R. Montgomery, A. Pokrovskiy, B. Sudakov** J. Europ. Math. Soc.
+ “Embedding rainbow trees with applications to graph labelling and decomposition” Accepted
- F. Benzing, A. Pokrovskiy, B. Sudakov** Europ. J. Combin.
+ “Long directed rainbow cycles and rainbow spanning trees” Accepted
- J. Corsten, A. Mond, A. Pokrovskiy, C. Spiegel, T. Szabó** Europ. J. Combin.
+ “On the Odd Cycle Game and Connected Rules” Accepted
- M. Bucić, E. Jahn, A. Pokrovskiy, B. Sudakov** J. Comb. Theory Ser. B.
+ “2-factors with k cycles in Hamiltonian graphs” Accepted

Published papers

- 2019.....
- R. Montgomery, A. Pokrovskiy, B. Sudakov** Proc. Lond. Math. Soc.
+ “Decompositions into spanning rainbow structures” 119 (2019) 899–959
- A. Pokrovskiy, B. Sudakov** Proc. Amer. Math. Soc.
+ “A counterexample to Stein’s Equi- n -square Conjecture” 147 (2019), 2281–2287
- R. Javadi, F. Khoeini, G. R. Omid, A. Pokrovskiy** Combin. Probab. Comput.
+ “On the size-Ramsey number of cycles” 28 (2019) 871–880
- A. Abu-Khazneh, J. Barát, A. Pokrovskiy, T. Szabó** J. Combin. Theory Ser. B
+ “A family of extremal hypergraphs for Ryser’s conjecture” 161 (2019) 164–177
- 2018.....
- A. Pokrovskiy** Advances in Mathematics
+ “An approximate version of a conjecture of Aharoni and Berger” 333 (2018) 1197–1241
- A. Pokrovskiy, B. Sudakov** J. Combin. Theory. Ser. B
+ “Linearly many rainbow trees in properly edge-coloured complete graphs” 132, (2018) 134–156
- I. Balla, A. Pokrovskiy, B. Sudakov** Combin. Probab. Comput.
+ “Ramsey goodness of bounded degree trees” 27 (2018) 289–309
- 2017.....
- N. Alon, A. Pokrovskiy, B. Sudakov** Israel J. Math.
+ “Random subgraphs of properly edge-coloured complete graphs and long rainbow cycles” 222, (2017) 317–331.
- A. Pokrovskiy** Int. Math. Res. Notices
+ “Edge disjoint Hamiltonian cycles in highly connected tournaments” 2, (2017) 429–467.
- A. Pokrovskiy** Electron. J. Combin.
+ “Rainbow matchings and rainbow connectedness” 24 (2017)
- L. Narins, A. Pokrovskiy, T. Szabó** Combinatorica
+ “Graphs without proper subgraphs of minimum degree 3 and short cycles” 37 (2017), 495–519

- I. Balla, A. Pokrovskiy, B. Sudakov** **Mosc. J. Comb. Number Theory.**
 + “A remark on Hamilton cycles with few colors” 7 (2017) 73–77.
- D. Hefetz, C. Kusch, L. Narins, A. Pokrovskiy,** **J. Combin. Theory Ser. A**
 + **C. Requilé, A. Sarid** “Strong Ramsey Games: Drawing on an infinite board” 150 (2017), 248–266
- A. Pokrovskiy** **J. Graph Theory**
 + “Calculating Ramsey numbers by partitioning coloured graphs” 84 (2017) 477–500
- A. Abu-Khazneh, A. Pokrovskiy** **J. Combin. Math. Combin. Comput.**
 + “Intersecting extremal constructions in Ryser’s Conjecture 103 (2017) 81–104
 for r -partite hypergraphs”
- D. Clemens, J. Ehrenmüller, A. Pokrovskiy** **J. Combin. Theory Ser. B**
 + “On sets not belonging to algebras and rainbow matchings in graphs” 122 (2017) 109–120
- A. Pokrovskiy, B. Sudakov** **J. Combin. Theory Ser. B**
 + “Ramsey goodness of paths” 122 (2017) 384–390
- 2015.....
- Y. Kim, M. Kumbhat, Z. Nagy, B. Patkós, A. Pokrovskiy, M. Vizer** **Discrete Appl. Math.**
 + “Identifying codes and searching with balls in graphs” 193 (2015) 39–47
- A. Pokrovskiy** **J. Combin. Theory Ser. B**
 + “Highly linked tournaments” 115 (2015) 339–347
- A. Pokrovskiy** **J. Combin. Theory Ser. A**
 + “A linear bound on the Manickam-Miklós-Singhi Conjecture” 133 (2015) 280–306
- 2014.....
- D. Gerbner, V. Mészáros, D. Pálvölgyi, A. Pokrovskiy, G. Rote** **J. Graph Algorithms Appl.**
 + “Advantage in the discrete Voronoi game” 18 (2014) 439–457
- A. Pokrovskiy** **J. Combin. Theory Ser. B**
 + “Partitioning edge-coloured complete graphs into monochromatic 106 (2014), 70–97
 cycles and paths”
- A. Pokrovskiy** **Australas. J. Combin.**
 + “Edge growth in graph powers” 58 (2014), 347–357
- 2011.....
- A. Pokrovskiy** **Electron. J. Combin.**
 + “Growth of graph powers” 18 (2011)
- 2008.....
- A. Amann, S. Osborne, S. O’Brien, A. Pokrovskiy** **J. Phys.: Conf. Ser.**
 + “Complex networks based on discrete-mode lasers ” 138 (2008), 3283-3294

Submitted papers

- R. Montgomery, A. Pokrovskiy, B. Sudakov** arXiv:2001.02665
+ *"A proof of Ringel's Conjecture"*
- J. Balogh, G. Kronenberg, A. Pokrovskiy, T. Szabó** arXiv:1907.04559
+ *"The maximum length of K_r -Bootstrap Percolation"*
- S. Bustamante, J. Corsten, N. Frankl, A. Pokrovskiy, J. Skokan** arXiv:1903.04471
+ *"Partitioning edge-coloured hypergraphs into few monochromatic tight cycles"*
- D. Korándi, R. Lang, S. Letzter, A. Pokrovskiy** arXiv:1902.05882
+ *"Minimum degree conditions for monochromatic cycle partitioning"*
- A. Pokrovskiy, B. Sudakov** arXiv:1807.02313
+ *"Ramsey goodness of cycles"*
- A. Pokrovskiy** arXiv:1607.03348
+ *"Partitioning a graph into a cycle and a sparse graph"*

Teaching experience

Probabilistic Methods <i>Lecturer</i>	Birkbeck 2020–2020
Proof and Structure in Mathematics <i>Lecturer</i>	Birkbeck 2019–2020
Number Theory and Geometry <i>Lecturer</i>	Birkbeck 2018–2019
Graph Theory <i>Class teacher</i>	ETH, Zürich 2018–2018
Algebra I <i>Class teacher</i>	ETH, Zürich 2017–2017
Analysis III <i>Organizer</i>	ETH, Zürich 2016–2017
Topology <i>Class teacher</i>	ETH, Zürich 2016–2016
Complex Function Theory <i>Class teacher</i>	ETH, Zürich 2015–2016
Discrete Mathematics III <i>Seminar organizer</i>	Free University, Berlin 2013–2015
Discrete Mathematics <i>Class teacher</i>	LSE, London 2011–2013
Mathematical Methods <i>Class teacher</i>	LSE, London 2009–2011