Alexey Pokrovskiy | C.V.

Departement of Economics, Mathematics, and Statistics
Birkbeck, University of London
Malet Street, Bloomsbury, London WC1E 7HX
☎ +44 77 29381184 • a.pokrovskiy@bbk.ac.uk

Education

London School of Economics — **London**
PhD in mathematics — *2009–2013*
Supervisors: Prof Jan van den Heuvel and Prof Jozef Skokan
Thesis title: "Graph partitions, powers and other extremal problems"

University of Cambridge — **Cambridge**
MMath, with distinction — *2008–2009*

University of Cambridge — **Cambridge**
BA in mathematics, first class honours — *2005–2008*

Employment

Birkbeck, University of London — **London**
Lecturer — *2018–present*

ETH Zürich — **Zürich**
Postdoctoral researcher — *2015–2018*
Adviser: Prof Benjamin Sudakov

Free University of Berlin — **Berlin**
Postdoctoral researcher — *2013–2015*
Adviser: Prof Tibor Szabó

Invited conference talks

Workshop on Probabilistic and Extremal Combinatorics — **Harvard**
"Latin Squares and Rainbow Subgraphs" — *07/02/2018*

British Mathematical Colloquium — **Bristol**
"Ramsey goodness of paths" — *22/03/2016*

2015 London Colloquia in Combinatorics — **London**
"Connectedness in tournaments" — *14/05/2015*

Annual Berlin-Poznań Seminar — **Hamburg**
"Calculating Ramsey numbers by partitioning coloured graphs" — *23/05/2014*

Accepted papers

- **R. Montgomery, A. Pokrovskiy, B. Sudakov** — **J. Europ. Math. Soc.**
  "Embedding rainbow trees with applications to graph labelling and decomposition" — *Accepted*
- **R. Montgomery, A. Pokrovskiy, B. Sudakov** — **Proc. Lond. Math. Soc.**
  "Decompositions into spanning rainbow structures" — *Accepted*
- **R. Javadi, F. Khoeini, G. R. Omidi, A. Pokrovskiy** — **Combin. Probab. Comput.**
  "On the size-Ramsey number of cycles" — *Accepted*
- **F. Benzing, A. Pokrovskiy, B. Sudakov** — **Europ. J. Combin.**
  "Long directed rainbow cycles and rainbow spanning trees" — *Accepted*

Published papers

2019

- **A. Pokrovskiy, B. Sudakov** — **Proc. Amer. Math. Soc.**
  "A counterexample to Stein's Equi-n-square Conjecture" — *147 (2019), 2281–2287*
- **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*
- **N. Alon, 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, C. Requilé, A. Sarid** — **J. Combin. Theory Ser. A**
  "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 for r-partite hypergraphs" — *103 (2017) 81–104*
- **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 cycles and paths" — *106 (2014), 70–97*
- **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)*
- **R. Cross, V. Kozyakin, B. O'Callaghan, A. Pokrovskii** — **Metroeconomica**
  "Periodic sequences of arbitrage: a tale of four currencies" — *63 (2011) 250–294*

2010

- **B. McKay, A Pokrovskiy** — **Indiana Univ. Math. J.**
  "Locally homogeneous structures on Hopf surfaces" — *59 (2010) 1491–1540*

2009

- **A. Pokrovskii, A. Pokrovskiy, A. Zhezherun** — **J. Differential Equations.**
  "A corollary of the Poincaré-Bendixson theorem and periodic canards" — *247 (2009) 3283–3294*

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

- **M. Bucić, M. Kwan, A. Pokrovskiy, B. Sudakov** **arXiv:1810.07462**
  "Halfway to Rota's basis conjecture"

  The maximum length of Kr-Bootstrap Percolation
- **J. Balogh, G. Kronenberg, A. Pokrovskiy, T. Szabó** **arXiv:1907.04559**
  "The maximum length of K_r-Bootstrap Percolation"
- **J. Corsten, A. Mond, A. Pokrovskiy, C. Spiegel, T. Szabó** **arXiv:1906.04024**
  "On the Odd Cycle Game and Connected Rules"
- **M. Bucić, E. Jahn, A. Pokrovskiy, B. Sudakov** **arXiv:1905.09729**
  "2-factors with k cycles in Hamiltonian graphs"
- **M. Bucic, M. Kwan, A. Pokrovskiy, B. Sudakov, T. Tran, A. Wagner** **arXiv:1809.01468**
  "Nearly-linear monotone paths in edge-ordered graphs"
- **S. Bustamante, J. Corsten, N. Frankl, A. Pokrovskiy, J. Skokan** **arXiv:1903.04471**
  "Partitioning edge-coloured hypergraphs into fewmonochromatic 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

Number Theory and Geometry — **Birkbeck**
Lecturer — *2018–2019*

Graph Theory — **ETH, Zürich**
Class teacher — *2018–2018*

Algebra I — **ETH, Zürich**
Class teacher — *2017–2017*

Analysis III — **ETH, Zürich**
Organizer — *2016–2017*

Topology — **ETH, Zürich**
Class teacher — *2016–2016*

Complex Function Theory — **ETH, Zürich**
Class teacher — *2015–2016*

Discrete Mathematics III — **Free University, Berlin**
Seminar organizer — *2013–2015*

Discrete Mathematics — **LSE, London**
Class teacher — *2011–2013*

Mathematical Methods — **LSE, London**
Class teacher — *2009–2011*