

# Curriculum vitae

Dániel Gerbner

Date and place of birth: October 5. 1980., Budapest

Nationality: Hungarian

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Research interest: Extremal Combinatorics, Search Theory

## Education

1999-2004 Eötvös Loránd University

Faculty of Science

Msc. in Mathematics

2004-2007 Eötvös Loránd University

Faculty of Informatics

Ph.D program

Supervisor: Gyula O.H. Katona

Title of thesis: Extremal Combinatorial Problems

Date of Defense: Dec. 9. 2009.

### **Current position**

OTKA postdoctoral fellow at the Alfréd Rényi Institute of Mathematics in Budapest, Hungary, September 2013–present

### **Earlier positions**

Young researcher (postdoc) and research fellow at the Alfréd Rényi Institute of Mathematics in Budapest, Hungary, January 2008–Augustus 2013.

Teaching assistant, University of South Carolina, August–December 2007.

### **Teaching experience**

Teaching assistant - Discrete Mathematics, Eötvös University, Budapest 2005–2007.

Teaching assistant - Calculus, Math 141, University of South Carolina, 2007.

Teaching assistant - Foundations of Computer Science, Technical University, Budapest, 2013.

### **Scientific Awards, Grants**

2009. Grünwald Géza Emlékérem

2013–present OTKA (Hungarian National Scientific Fund) Postdoctoral Grant

# Publications

1. Dániel Gerbner: Egy extrémális probléma, *Matematikai Lapok* 2000–2001/2 (2005), 5–12.
2. Attila Bernáth, Dániel Gerbner: Chain intersecting set families, *Graphs and Combinatorics*, 23 (2007), no. 4, 353–366.
3. Dániel Gerbner, Balázs Patkós:  $l$ -chain profile vectors, *SIAM J. Discrete Math.* 22 (2008), no. 1, 185–193.
4. Dániel Gerbner, Balázs Patkós: Profile vectors in the lattice of subspaces, *Discrete Mathematics*, 309 (2009), no. 9, 2861–2869
5. Dániel Gerbner, Dömötör Pálvölgyi, Balázs Patkós, Gábor Wiener: Finding the maximum and minimum elements with one lie, *Discrete Appl. Math.* 158 (2010), no. 9, 988–995.
6. Dániel Gerbner, Balázs Keszegh, Nathan Lemons, Balázs Patkós, Cory Palmer, Dömötör Pálvölgyi: Polychromatic colorings of arbitrary rectangular partitions, *Discrete Mathematics* 310 (2010), no. 1, 21–30
7. Dániel Gerbner, Nathan Lemons, Balázs Patkós, Cory Palmer, Vajk Szècsi: Cross-Sperner families, *Studia Sci. Math.* 49 (2012), 44–51.
8. P.L. Erdős, Dániel Gerbner, Nathan Lemons, Dhruv Mubayi, Cory Palmer, Balázs Patkós, Two-part set systems *Electronic Journal of Combinatorics* 19 (2012) P52, 10pp.
9. Dániel Gerbner, Balázs Keszegh, Cory Palmer: Generalizations of the Tree Packing Conjecture, *Discussiones Mathematicae Graph Theory* 32 (2012) 569–582.
10. Dániel Gerbner, Balázs Keszegh: Path-search in the pyramid and in other graphs, *Journal of Statistical Theory and Practice* 6 (2012) 303–314., doi: 10.1080/15598608.2012.673885

11. Dániel Gerbner , Nathan Lemons, Cory Palmer, Balázs Patkós and Vajk Szécsi: Almost intersecting families of sets *SIAM J. Discrete Math.* 26 (2012) 1657-1699.
12. Dániel Gerbner, Nathan Lemons, Cory Palmer, Dömötör Pálvölgyi, Balázs Patkós and Vajk Szécsi: Almost Cross-Intersecting and Almost Cross-Sperner Pairs of Families of Sets *Graphs and Combinatorics* 29 (2013) 489–498. doi: 10.1007/s00373-012-1138-2
13. Dániel Gerbner, Balázs Keszegh, Nathan Lemons, Balázs Patkós, Cory Palmer, Dömötör Pálvölgyi: Saturating Sperner Families, *Graphs and Combinatorics* 29 (2013) 1355–1364. doi: 10.1007/s00373-012-1195-6
14. Dániel Gerbner, Gyula O.H. Katona, Dömötör Pálvölgyi, Balázs Patkós: Majority and plurality problems, *Discrete Applied Mathematics* 161, (2013) 813–818. doi: 10.1016/j.dam.2012.10.023
15. Dániel Gerbner, Balázs Keszegh, Dömötör Pálvölgyi, Gábor Wiener: Density-based group testing, *Information Theory, Combinatorics and Search Theory, in Memory of Rudolf Ahlswede, LNCS 7777* (2013) 543–556.
16. Dániel Gerbner: Profile polytopes of some classes of families, *Combinatorica* 33 (2013) 199–216.
17. Dániel Gerbner, Géza Tóth: Separating families of convex sets, *Computational Geometry* 46 (2013) 1056–1058.
18. J. Balog, J. Barát, D. Gerbner, A. Gyárfás, G. Sárközy: Partitioning Edge-2-colored graphs by monochromatic paths and cycles, *Combinatorica*, to appear
19. Dániel Gerbner, Barát János: Edge-decomposition of graphs into copies of a tree with four edges, *Electronic Journal of Combinatorics*, accepted

20. Dániel Gerbner: The Magnus-Derek game in groups, *Discrete Mathematics and Theoretical Computer Science*, *accepted*
21. Adrian Dumitrescu, Dániel Gerbner, Balázs Keszegh, Csaba Tóth: Covering paths for planar point sets, *Discrete and Computational Geometry*, *accepted*