

**Personal:**

Name: József Balogh

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**Education:**

PhD in Mathematics, 1997–2001, THE UNIVERSITY OF MEMPHIS, Memphis, TN, USA

Advisor: Prof. **Béla Bollobás**, Dissertation: *Graph properties and Bootstrap percolation*

M.Ed. in Mathematics Education, 1997, SZEGED UNIVERSITY, Hungary

M.S. in Mathematics, (summa cum laude) 1995, SZEGED UNIVERSITY, Hungary

Advisor: Prof. **Péter Hajnal** Dissertation: *On the existence of MDS-cyclic codes*

EU Scholarship (Tempus Grant) 1993–94. UNIVERSITY OF GENT, Belgium

**Positions:**

- UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, Urbana-Champaign, IL, USA  
Professor, August 2013– present.
- SZEGED UNIVERSITY, Szeged, Hungary, Senior Researcher, August 2013– 2014.
- UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, Urbana-Champaign, IL, USA  
Associate Professor, August 2010– present.
- UNIVERSITY OF CALIFORNIA AT SAN DIEGO, USA, Associate Professor, 2009–2011.
- IPAM AT UCLA, USA, Long term visitor September 2009– December 2009.
- UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, Urbana-Champaign, IL, USA  
Assistant Professor, August 2005– July 2010.
- THE OHIO STATE UNIVERSITY Columbus, OH, USA  
Zassenhaus Assistant Professor, September 2002– August 2005.
- INSTITUTE OF ADVANCED STUDIES, Princeton, USA, Long term visitor, April – July 2002.
- AT&T RESEARCH LABS, SHANNON LABORATORY, Florham Park, NJ, USA,  
Shannon Postdoctoral Fellowship, August 2001– March 2002.

**Grants:**

- BRIDGE Seed Fund project: Building Bridges in Mathematics, between the U. of Birmingham and UIUC, \$3300 (2015)
- NSA grant H98230-15-1-0002: “Sparse Discrete Structures,” \$40000 (01/2015–12/2015)
- Arnold O. Beckman Research Award, by UIUC Research Board \$29990 (09/2014–12/2015)
- **Simons Fellow**, \$110000 (2013–14)
- **Marie Curie Fellow**, FP7-PEOPLE-2012-IIF 327763, EURO 110000 (2013–14)
- Travel Scholar fund (UIUC), for international travel, \$850 (2014–15)
- **NSF CAREER**: “Methods and Outreach in Modern Combinatorics”, \$529000 (2008–13).
- **NSF**: “Hereditary and Random Combinatorial Structures” (with Füredi) \$351999 (2006–09).
- **NSF**: “Extremal Graph Theory and Bootstrap Percolation” \$77000 (06/2003–05/06).
- Travel Scholar fund (UIUC), for international travel, \$1050 (2012–13)

- Arnold O. Beckman Research Award, by UIUC Research Board \$27760 (01/2013–12/2013)
- Travel Scholar fund (UIUC), for international travel, \$1050 (2012–13)
- IMA grant (\$4000) supporting the Excill II conference at UIUC, March 2013, (joint with Kostochka, Lidicky and West)
- IMA Grant to support Graduate Student Conference in Combinatorics at UIUC (joint with West) \$5000 (2012)
- Travel Scholar fund (UIUC), for international travel, \$1050 (2011–12)
- Campus Research Board Grant (11067, to support an RA), UIUC,  $\approx$  \$8500 (01/2011-12/2011)
- Campus Research Board Grant (09072, to support an RA), UIUC,  $\approx$  \$8500 (01/2009-12/2010)
- Campus Research Board Grant (08086, to support an RA), UIUC,  $\approx$  \$8500 (01/2008-05/2008)
- Campus Research Board Grant (07048, to support an RA), UIUC,  $\approx$  \$8000 (01/2007-05/2007)
- NSF grant (\$10000) and IMA grant (\$4000) supporting the Excill conference at UIUC, Nov 18-20, 2006 (joint with Füredi, Hartke, Kostochka and West)
- Campus Research Board Grant (06139), UIUC, \$8500 (01/2006-12/2006)
- Soros grant, for starting Hungarian Ph.D. students in USA \$4000 (1997)

#### Awards and Scholarships:

- Arnold O. Beckman Research Award, by UIUC Research Board (2015)
- **Marie Curie Fellow**, FP7-PEOPLE-2012-IIF 327763 (2013–14)
- **Simons Fellow** (2013–14)
- Arnold O. Beckman Research Award, by UIUC Research Board (2013)
- On the List of Teachers ranked as excellent by their students, UIUC, Falls 2007, 2011, 2012.
- Mortons Dissertation Award, for outstanding dissertation at University of Memphis (2001)
- Second Prize, Algebra Section at the Hungarian National Conference for undergraduates (1995)
- Hungarian National Fellowship for outstanding undergraduates (1993, 1994, 1995)
- Miklós Schweitzer Hungarian National Memorial Math. Contest, fourth prize (1994, 1995)
- Kató Rényi Award (nationally awarded to promising undergraduates in mathematics) (1993)
- **International Mathematical Olympiad** (Braunschweig, Beijing), silver medals (1989, 1990).

#### Ph.D. students supervised:

- Noah Prince: Illinois Math. & Science Academy, Aurora (2008)
- Wojtek Samotij: fellow at Cambridge, UK and Tel Aviv, EUROCOMB 13 prize, Dénes König 14 prize winners (2010)
- John Lenz: postdoc at UIC (2011)
- Jane Butterfield: MathCEP postdoc at U. Minnesota, tt in education at Victoria U. CA (2012)
- Ping Hu: postdoc at Warwick (2014)
- Hong Liu (expected graduation 2016)
- Mayam Sharifzadeh (expected graduation 2016)
- Michelle Delcourt (expected graduation 2017)
- Sarka Petrickova (expected graduation 2017)
- Adam Zsolt Wagner (started 2014)

**Postdocs mentored:**

- Sujith Vijay (co-mentored), (2007–2009)
- Bernard Lidicky (co-mentored), (2011–2014)
- Cory Palmer (2011–2013)
- Theo Molla (co-mentored) (2013–2016)

**Selected Invited Conference Talks:**

- Invited participant at Banff International Research Station: 2009, 2011, 2012, 2015
- Invited plenary Speaker, Random Structures and Algorithms, CMU (2015)
- Principal speaker, 25th, 28th Cumberland Conference on Combinatorics, at ETSU 2012, 2015
- Invited two hour key-note speaker Atlanta Lecture Series in Combinatorics and Graph Theory XIV, 2015.
- FoCM, Montevideo Uruguay (Dec 2014)
- Invited Speaker, IMA (Sep 2014)
- Invited Speaker, Edinburgh Summer School in Combinatorics (July 2014)
- Invited plenary Speaker, London Colloquium in Combinatorics (May 2014)
- Invited Speaker, Moscow Number Theory Workshop (Jan 2014)
- Invited speaker, Cambridge, BelaBash 70 (2013)
- Invited speaker, Erdős Centennial Meeting, Budapest, Hungary, July 2013.
- Stochastic Days, Szeged (July 2013)
- Finite Geometry Conference and Workshop, Szeged (June 2013)
- Invited Plenary Speaker, LAGOS' 13, Mexico, April 2013.
- Invited participant at Oberwolfach Research Center: 2006, 2007, 2009, 2012, 2013, 2014.
- Invited hour speaker Atlanta Lecture Series in Combinatorics and Graph Theory VIII, 2013.
- European Conference on Combinatorics (EUROCOMB), **Invited plenary speaker**, 2011.
- "Emlektábla III." workshop, Invited plenary speaker, Rényi Institute, Budapest, Hungary, 2011.
- P. Hajnal birthday conference, invited speaker, Szeged, Hungary, July 2011.
- Erdős Lecture Series, Memphis, TN, invited speaker: 2004, 2011, 2014.
- AMS Sectional Meetings: 1999, 2000, 2003, 2004, 2005, 2005, 2005, 2007, 2010, 2010, 2011, 2015, 2015.
- Invited participant at AIMS, Turán Hypergraph numbers, March 2011, Crossing Numbers 2014, Ramsey numbers 2015.
- IMPA Summer School, Lecture Series, Brasil, January 2011.

**Colloquia:** Microsoft Research, Theory Group, Seattle, WA: 2001; Wright State University 2004, UC Riverside 2004, University of Central Florida 2005, UIC 2005, University of Western Australia 2005, UIUC 2005, Iowa State University 2005, UIUC 2005, Western Kentucky University 2008, UCSD 2009, The Ohio State University 2005, 2009, 2013, Waterloo 2012.

**Seminars:** UIC: 2004, 2008, 2010, 2012;

UIUC: 2004, 2005, 2006, 2006, 2006, 2006, 2008, 2009, 2009, 2010, 2011, 2011, 2012, 2014;

University of Szeged, Hungary: 1998, 2003, 2006, 2006, 2008, 2009, 2010, 2011, 2012, 2014;  
 Sao Paulo (2014)  
 Renyi Institute, Budapest (2014)  
 London School of Economy (2014)  
 U. of Birmingham (2014)  
 Technical University, Budapest (2013)  
 Emory (2013)  
 Columbia University: 2012;  
 Rutgers: 2012;  
 ETH, Zurich: 2004, 2011;  
 University of Memphis: 1997, 2001, 2003, 2004, 2004, 2009, 2014;  
 Ponom College, CA: 2009; UCSD 2010; UCLA 2010; Microsoft Research Theory Group, Seattle, WA: 2001, 2008; U. San Luis Potosi, Mexico: 2007; CMU, Pittsburgh, PA: 2004, 2007; Cambridge University, UK: 2007; IMPA, Brasil: 2007; Princeton: 2007; California Institute of Technology: 2006; MIT: 2006; Iowa State University: 2005; Indiana University: 2006; The Ohio State University: 2002, 2002, 2004, 2004, 2004, 2005; IAS, Princeton, NJ: 2002, 2003; IBM Watson Center, NY: 2002; Georgia Tech: 2002; CUNY, New York City: 2002, 2012; DIMACS, NJ: 2001; AT&T Research, NJ: 2001.

### Selected Publications:

- N. Alon, J. Balogh, P. Keevash, and B. Sudakov, *The number of edge colorings with no monochromatic cliques*, J. London Math. Soc., **70** (2004), 273–288.
- N. Alon, J. Balogh, R. Morris and W. Samotij, *A refinement of the Cameron-Erdős Conjecture*, Proceeding of the London Mathematical Society, **108** (2014), 44–72.
- J. Balogh, B. Bollobás, H. Duminil-Copin, and R. Morris, *The sharp threshold for bootstrap percolation in all dimensions*, Trans. Amer. Math. Soc., **364** (2012), 2667–2701.
- J. Balogh, B. Bollobás, and R. Morris, *Bootstrap percolation in three dimensions*, Ann. Probab., **37** (2009), 1329–1380.
- J. Balogh and J. A. Csirik, *Index assignment for two-channel quantization*, IEEE Transactions on Information Theory **11** Vol. 50 November (2004), 2737–2751.
- J. Balogh and J. Lenz, *Some Exact Ramsey-Turán Numbers*, Bull. Lond. Math. Soc., **44** (2012), 1251–1258.
- J. Balogh, H. Liu, M. Sharifzadeh, and A. Treglown, *The number of maximal sum-free subsets of integers*, Proceedings of AMS, to appear.
- J. Balogh, R. Morris and W. Samotij, *Independent sets in hypergraphs*, JAMS, to appear.
- J. Balogh, R. Morris, W. Samotij and L. Warnke, *The typical structure of sparse  $K_{r+1}$ -free graphs*, Transactions of AMS, to appear.
- J. Balogh and S. Petrickova, *The number of the maximal triangle-free graphs*, Bull. London Math. Soc., **46** (2014), 1003–1006.
- J. Balogh and W. Samotij, *The number of  $K_{s,t}$ -free graphs*, J. Lond. Math. Soc., **83** (2011), 368–388.

### Teaching:

- UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN: 2005–present  
 Discrete Mathematics (M213),

Graph Theory (M412), (4 semesters), Discrete Mathematics (M413) (4), Combinatorics (M580) (2), Methods in Combinatorics (M584), Probabilistic methods in combinatorics, (M585) (2), Combinatorial Optimization (M588) (3), Topics class (M595) (4), Regularity Lemma (M595), Art of Combinatorics (M595), Additive Combinatorics (M595).

- UNIVERSITY OF CALIFORNIA AT SAN DIEGO: 2009–2010  
Topics class 262B, Extremal combinatorics, Calculus 10B, Mathematical Reasoning 109.
- THE OHIO STATE UNIVERSITY, Columbus, OH: 2002–2005  
Discrete Math. I-II (7, 3 quarters), Probability (1), Trigonometry (1), Analysis (graduate) (1).

### Professional activities:

- Co-organizer for several conferences: EXCILL I, II at UIUC, Graduate Student Conference at UIUC, Several Special Sessions at AMS Sectional meetings.
- Reader for the USA National "Siemens" high school competition, 2010, 2011, 2012.
- Reviewer for several grant agencies in various countries, including NSF and NSA in USA, Holland, Italian, Portugal, Israelean, Hungarian, Swiss NSF.
- Referee for journals, including: Advances in Math., Combinatorica, Combinatorics Probability and Computing, Journal of Combinatorial Theory A, and B, J. London Math. Soc., Random Structures & Algorithms, . . . .

### Committees, other activities

- Promotion and Tenure-Track Committee (2014/16)
- Mathematics Area Chair, Combinatorics (2012/13)
- Math Comp Exams, Comb-580 (2012/13)
- Math Fellowship (2012/13)
- Postdoc search (2006/07, 2011/12, 2012/13, 2014/15)
- Colloquim Committee (2011/12)
- Proficiency Committee (2011-12)
- Outsider thesis committee member at ETH (November 2011)
- Siemens Competition in Math, Science and Technology for high school students, judge (October 2010, 2011, 2012)
- OTKA (Hungarian grants) reviewer (Summer 2010, 2011, 2012)
- NSF Graph Theory Panel (four times, including CAREER)
- NSA reviewer (Spring 2007, 2008, 2010, 2011, 2012)
- Member candidacy exam committee (UCSD).
- Graduate student admission (combinatorics, 60 files) admission (UCSD, Spring 2010),
- Colloquium Committee (2008/09)
- Undergraduate affairs committee (2007-09)
- Graduate student admission (UIUC, every year in the area of combinatorics)
- Member of Several Ph.D thesis defense and prelim committees (UIUC).
- Reviewer for Mathschnet (since 2004)

### Memberships

- American Mathematical Society
- János Bolyai Mathematical Society, Hungary