Casey Tompkins

CONTACT INFORMATION	36 70 606 7206 ctompkins496@gmail.com
CURRENT POSITION	Young Researcher (postdoc) at the Alfréd Rényi Institute of Mathematics, Hungarian Academy of Sciences. Nov 2014–
RESEARCH INTERESTS	Extremal combinatorics, graph theory, combinatorial geometry.

EDUCATION

Central European University, Budapest, Hungary

Ph.D., Mathematics and its Applications,   May 2015
- Thesis Topic: *Extremal Problems on Sets and Posets*, awarded grade of *summa cum laude*
- Advisor: Gyula O.H. Katona

M.S., Mathematics and its Applications,   June 2011
- Thesis Topic: *Generalizations of Classical Theorems in Extremal Set Theory*
- Advisor: Gyula O.H. Katona

Lake Forest College, Lake Forest IL, United States

B.S., Mathematics,   Dec 2008

AWARDS

Doctoral Research Study Grant   Aug 2014

Award for Advanced Doctoral Students   Feb 2014
Department of Mathematics and its Applications,
Central European University

ARTICLES

1. D. Gerbner, A. Methuku, C. Tompkins. Intersecting P-free families. Journal of Combinatorial Theory, Series A 151, 61-83, 2017.

2. P. Aboulker, G. Lagarde, D. Malec, A. Methuku, C. Tompkins. De Bruijn-Erdős type theorems for graphs and posets. Discrete Mathematics 340 (5) 995-999, 2017.

3. D. Grósz, A. Methuku, and C. Tompkins. An improvement of the general bound on the largest family of subsets avoiding a subposet. Order 34, 113-125, 2016.

4. A. Methuku and C. Tompkins. Exact forbidden subposet results using chain decompositions of the cycle. The Electronic Journal of Combinatorics, 22(4), 2015.

5. E. Győri, S. Kensell, C. Tompkins. Making a C_6-free graph C_4-free and bipartite. Discrete Applied Mathematics 209, 133-136, 2015.

6. D. Grósz, A. Methuku, and C. Tompkins. An upper bound on the size of diamond-free families of sets. arXiv:1601.06332, submitted.

7. A. Davoodi, E. Győri, A. Methuku, C. Tompkins. An Erdős-Gallai type theorem for hypergraphs. arXiv:1608.03241, submitted.

8. E. Győri, G. Katona, L. Papp, C. Tompkins. The optimal Pebbling number of staircase graphs. arXiv:1611.09686, submitted.

Peer Reviewed Conference Proceedings	1. J. Cardinal, S, Felsner, T. Miltzow, C. Tompkins, B. Vogtenhuber. Intersection graphs of rays and grounded segments. Proceedings of the 43rd International Workshop on Graph-Theoretic Concepts in Computer Science, 2017.

Presentations

Talks at Conferences

- 25th workshop 3in1, Dosłónce , Poland   Nov 2016
  An upper bound on the size of diamond- free families of sets
- The Fourth Gdańsk Workshop on Graph Theory   Jun 2016
  An Erdős-Gallai type theorem for hypergraphs
- 24th workshop 3in1, Krynica, Poland   Nov 2015
  An improvement of the general bound on the largest family of subsets avoiding a subposet
- Young Researcher Conference, Budapest, Hungary   Jan 2015
  Extremal Results for forbidden subposets
- Combinatorics 2014, Gaete, Italy   Jun 2014
  Making a C_6-free graph C_4-free and bipartite
- Summit:240, Budapest, Hungary   Jul 2014
  Making a C_6-free graph C_4-free and bipartite
- Problems in Combinatorics and Posets Session, Kraków, Poland   Sep 2012
  Fobidding Subosets of B_n

Talks at Tokyo University of Science

- The largest family of sets forbidding a subposet   Oct 2014

Talks at the Rényi Institute

- A hypergraph version of the Erdős-Gallai theorem   Mar 2017
- Diamond-free families of sets   Oct 2016
- Intersecting P-free problems   Apr 2015
- Local versions of Intersection and Sperner-type problems   Dec 2014
- A paper of Kamat and Misra: "An Erdős–Ko–Rado theorem for matchings in the complete graph"   Apr 2013
- Making a Graph C_6 or C_8-free   Dec 2012
- A generalization of Hilton's Theorem   Nov 2011
- A paper of Körner and Sinaimeri: "On Cancellative Set Families"   Apr 2010

Presentations at annual Student Symposium Lake Forest College

- Counting the Fibonacci Numbers   Apr 2008
- Granular Compaction   Apr 2007

Teaching Experience	Instructor	Fall 2011–13 and 2015–16
	GRE preparation session at	
	Budapest Semesters in Mathematics	
	Teaching Assistant	2006-08
	Real Analysis	
	Linear Algebra	
	Discrete Mathematics	
	Tutor in Mathematics and Physics Department	
	Lake Forest College	

Physics Research	**Summer Student Research**	Summer 2005 and 2006
	Department of Physics,	
	Lake Forest College	
	Topic: Granular Compaction and Size Segregation	
	Supervisor: Nathan Mueggenburg	

Academic Visits	Tokyo University of Sciences Supervisor: Yoshimi Egawa	Sep 2014– Nov 2014

Competition
Results

MAA undergraduate team math competitions
- 1st Place   2007
- 2nd Place   2005 and 2006

Service

Conference Assistance
- Assisted in running Erdős Centenial Conference   2013
- Assisted in running the European Conference on
   Combinatorics Graph Theory and Applications   2011
- Assisted in running the Summit 2014 Conference   2014

Reviewing Articles
- Combinatorica
- Discrete Mathematics
- Australian Journal of Combinatorics