

- (8) *Cyclic triangle factors in regular tournaments* The Electronic Journal of Combinatorics (2019) P4.24. (with L. Li) <http://www.combinatorics.org/ojs/index.php/eljc/article/view/v26i4p24>
- (9) *Long rainbow cycles and Hamiltonian cycles using many colors in properly edge-colored complete graphs* European Journal of Combinatorics (June 2019) 140–151 (with J. Balogh) <https://doi.org/10.1016/j.ejc.2019.02.008>
- (10) *An algorithmic answer to the Ore-type version of Dirac’s question on disjoint cycles* Optimization Problems in Graph Theory (2018) (book chapter) (with H.A. Kierstead, A. Kostochka and D. Yager) <https://doi.org/10.1007/978-3-319-94830-0>
- (11) *Tiling directed graphs with tournaments* Forum of Mathematics, Sigma, 6 (2018), e2 (with A. Czygrinow, L. DeBiasio and A. Treglown) <https://doi.org/10.1017/fms.2018.2>
- (12) *Triangle-tilings in graphs without large independent sets*, Combinatorics, Probability and Computing (July 2018) 449–474 (with J. Balogh, A. McDowell and R. Mycroft) <https://doi.org/10.1017/S0963548318000196>
- (13) *Spanning trees with leaf distance at least d* , Discrete Math (June 2017) 1412–1418 (with C. Erbes, S. Mousley, and M. Santana). <https://doi.org/10.1016/j.disc.2016.09.027>
- (14) *Transitive triangle-tilings in oriented graphs*, Journal of Combinatorial Theory, Series B (May 2017) 64–87 (with J. Balogh and A. Lo). <https://doi.org/10.1016/j.jctb.2016.12.004>
- (15) *A refinement of theorems on vertex disjoint chorded cycles*, Graphs and Combinatorics (January 2017) 181–201 (with M. Santana and E. Yeager). <https://doi.org/10.1007/s00373-016-1749-0>
- (16) *Sharpening an Ore-type version of the Corrádi-Hajnal theorem*, Abhandlungen aus dem Mathematischen Seminar der Universität Hamburg (October 2017) 299–335 (with H.A. Kierstead, A. Kostochka, and E. Yeager). <https://doi.org/10.1007/s12188-016-0168-8>
- (17) *Triangle factors of graphs without large independent sets and of weighted graphs*, Random Structures & Algorithms (December 2016) 669–693 (with J. Balogh and M. Sharifzadeh and Appendix by C. Reiher and M. Schacht). <https://doi.org/10.1002/rsa.20670>
- (18) *Increasing paths in edge-ordered graphs: the hypercube and random graphs*, The Electronic Journal of Combinatorics (2016) P2.15. (with J. De Silva, F. Pfender, T. Retter and M. Tait) <http://www.combinatorics.org/ojs/index.php/eljc/article/view/v23i2p15>
- (19) *The semi-degree threshold for anti-directed Hamilton cycles*, The Electronic Journal of Combinatorics (2015) P4.34. (with L. DeBiasio) <http://www.combinatorics.org/ojs/index.php/eljc/article/view/v22i4p34>
- (20) *Arbitrary orientations of Hamilton cycles in digraphs*, SIAM J. Discrete Math. (2015), 29–3, 1553–1584. (with L. DeBiasio, D. Kühn, D. Osthus and A. Taylor) <https://doi.org/10.1137/140974675>
- (21) *An extension of the Hajnal-Szemerédi theorem to directed graphs*, Combinatorics, Probability and Computing. (September 2015) 754–773. (with A. Czygrinow, L. DeBiasio and H.A. Kierstead) <https://doi.org/10.1017/S0963548314000716>
- (22) *On directed versions of the Corrádi-Hajnal corollary*, European Journal of Combinatorics (November 2014) 1–14. (with A. Czygrinow and H.A. Kierstead) <https://doi.org/10.1016/j.ejc.2014.05.006>
- (23) *Tight co-degree condition for the existence of loose Hamilton cycles in 3-graphs*, SIAM J. Discrete Math. (2014), 28-1, 67–76. (with A. Czygrinow) <https://doi.org/10.1137/120890417>
- (24) *A note on relaxed equitable coloring of graphs*, Information Processing Letters (November 2011) 1062–1066. (with H. Fan, H.A. Kierstead, G. Liu, J. Wu and X. Zhang) <https://doi.org/10.1016/j.ipl.2011.08.001>

Papers (Submitted)

- (1) On Two-coloring Bipartite Uniform Hypergraphs, (with B. Lee and B. Nagle)

Talks

Invited Talks

- *Perfect triangle tilings in multigraphs and directed graphs*, EXCILL IV, May 27, 2023
- *Perfect triangle tilings in multigraphs and directed graphs*, AMS Spring Southeastern Sectional Meeting, Special Session on Recent Trends in Structural and Extremal Graph Theory, March 18, 2023
- *Minimum color degree thresholds for rainbow subgraphs*, Illinois State University Discrete Math Seminar, October 13, 2022
- *Minimum color degree thresholds for rainbow subgraphs*, Atlanta Lecture Series, August 20, 2022
- *Minimum color degree thresholds for rainbow subgraphs*, Workshop on Extremal Combinatorics and Geometry, Banff Research Station, August 17, 2022
- *Disjoint cycles in graphs with restricted independence number*, SIAM Conference on Discrete Mathematics 2021, Minisymposium on Graph Theory and Combinatorics, July 21, 2021
- *Disjoint cycles in graphs with restricted independence number*, AMS Fall Southeastern Sectional Meeting, Special Session on Advanced Topics in Graph Theory and Combinatorics, Mar 13, 2021
- *Transversal C_k -factors in subgraphs of the balanced blowup of C_k* , Georgia Tech Graph Theory Seminar, Nov 17, 2020
- *Transversal C_k -factors in subgraphs of the balanced blowup of C_k* , AMS Fall Southeastern Sectional Meeting, Special Session on Structural and Extremal Graph Theory, Oct 11, 2020
- *Transversal C_k -factors in subgraphs of the balanced blowup of C_k* , University of Illinois Graph Theory and Combinatorics seminar, May 19, 2020
- *Powers of Hamiltonian cycles in multipartite graphs*, Iowa State Discrete Math Seminar, October 21, 2019
- *Transitive tournament tilings in oriented graph with large total degree*, AMS Fall Midwestern Sectional Meeting, Special Session on Extremal Graph Theory, September 14, 2019
- *Transitive tournament tilings in oriented graph with large total degree*, AMS Spring Western Sectional Meeting, Special Session on Structural Graph Theory, March 23, 2019
- *Rainbow cycles in edge-colored graphs with large minimum color degree*, AMS Spring Southeastern Sectional Meeting, Special Session on Recent Development in Graph Theory, March 16, 2019
- *Rainbow cycles in edge-colored graphs with large minimum color degree*, 4th Annual Mostly Manitoba, Michigan and Minnesota Combinatorics Graduate Students Workshop, September 9, 2018.
- *Vertex-disjoint cycles in graphs and directed graphs*, Atlanta Lecture Series, April 21, 2018.
- *An overview of extremal graph theory*, University of Tampa, October 25, 2017
- *Triangle-factors in regular tournaments*, AMS Fall Southeastern Sectional Meeting, Special Session on Structural Graph Theory, September 23, 2017
- *Triangle-tilings in graphs without large independent sets*, AMS Fall Central Sectional Meeting, Special Session on Probabilistic and Extremal Combinatorics, October 30, 2016
- *Ladders in dense graphs*, AMS Fall Eastern Sectional Meeting, Special Session on New Developments in Graphs and Hypergraphs, September 24, 2016
- *Perfect triangle-tilings*, EXCILL 3: Extremal Combinatorics at Illinois, August 10, 2016
- *Tiling directed graph with tournaments*, SIAM Conference on Discrete Math, Minisymposium on Graph Theory, June 9, 2016
- *Tiling directed graph with tournaments*, AMS Spring Central Sectional Meeting, Special Session on Probabilistic and Extremal Combinatorics, April 16, 2016.
- *Factors in graphs, directed graphs and weighted graphs*, Iowa State University, Discrete Math Seminar, March 22, 2016.

- *Factors in graphs, directed graphs and weighted graphs*, University of Illinois Mathematics Colloquium, December 9, 2015.
- *Factors in graphs, directed graphs and weighted graphs*, Atlanta Lecture Series, November 14, 2015.
- *Factors in graphs, directed graphs and weighted graphs*, Illinois State University Discrete Math Seminar, November 5, 2015.
- *Arbitrary orientations of Hamilton cycles in digraphs*, AMS Spring Central Sectional Meeting, Special Session on Extremal Graph Theory: Hypergraphs, Directed Graphs, and Other Generalizations, March 15, 2015
- *The Absorbing method*, 2nd Lake Michigan Workshop on Combinatorics and Graph Theory, March 8, 2015
- *Factors in graphs, directed graphs and hypergraphs*, Western Michigan University Mathematics Colloquium, February 26, 2015
- *Hajnal-Szemerédi type theorems*, Atlanta Lecture Series, Emory University, November 1, 2014
- *Equitable coloring and H-factors of graphs*, Miami University Mathematics Colloquium, October 23, 2014
- *Minimum degree thresholds for spanning subgraphs of directed and oriented graphs*, Joint Mathematical Meetings, AMS Special Session on Graph Theory: Structural and Extremal Problems, January 15, 2014
- *Tight co-degree condition for the existence of loose Hamilton cycles in 3-uniform hypergraphs*, AMS Fall Southeastern Sectional Meeting, Special Session on Extremal Graph Theory, October 6, 2013
- *The semi-degree threshold for anti-directed Hamilton cycles*, AMS Spring Western Sectional Meeting, Special Session on Extremal Graph Theory, April 13, 2013
- *Extending the Hajnal-Szemerédi Theorem to directed graphs*, University of Illinois Combinatorics and Graph Theory Seminar, November 6, 2012
- *Cyclic and transitive triangle factors of directed graphs*, Miami University Graph Theory Seminar, June 6, 2012

Contributed Talks

- *Minimum color degree thresholds for rainbow subgraphs*, 29th British Combinatorial Conference, July 11, 2022
- *Transitive tournament tilings in oriented graph with large total degree*, The 19th International Conference on Random Structure and Algorithms, July 16, 2019
- *Cyclic triangle factors in regular tournaments*. 2018 SIAM Conference on Discrete Math June 4, 2018
- *Triangle factors in graphs without large independent sets*. 30th Midwest Conference on Combinatorics, Cryptography, and Computing, October 16, 2016
- *Triangle factors in graphs, directed graphs and weighted graphs* LMS–EMS Mathematical Meeting, University of Birmingham, September 20, 2015
- *Triangle factors in graphs with large minimum degree and no large independent sets* The 17th International Conference on Random Structures and Algorithms, July 30, 2015
- *Perfect transitive triangle tilings in oriented graphs*, The 27th Cumberland Conference on Combinatorics, Graph Theory and Computing, May 16, 2014
- *Perfect tilings in graphs and digraphs*, Joint Mathematics Meetings, AMS Session on Graph Theory I, January 11, 2013
- *Hajnal Szemerédi and directed graphs*, 26th Midwest Conference on Combinatorics, Cryptography, and Computing, October 11, 2012
- *Oriented 2-factors in directed graphs*, Midwestern Graph Theory (MIGHTY) LIII Conference, September 22, 2012

Teaching

University of South Florida

- (Graduate course) Algorithms in Discrete Structures - Spring 2022
- (Graduate course) Combinatorics II - Spring 2020
- (Graduate course) Combinatorics I - Fall 2019, Fall 2023
- Optimization - Fall 2020, Fall 2023
- Introduction to Graph Theory - Spring 2018, Spring 2019, Spring 2020, Spring 2023
- Introduction to Combinatorics - Fall 2017, Fall 2018, Fall 2019, Fall 2020, Fall 2021, Fall 2022
- Bridge to Abstract Mathematics - Fall 2021, Fall 2022, Spring 2023
- Calculus II - Fall 2018

University of Illinois at Urbana-Champaign

- (Graduate course) Optimization in Networks - Spring 2015
- Linear Programming - Fall 2016, Spring 2016, Fall 2015, Spring 2015, Spring 2014
- Non-linear Programming - Fall 2014, Spring 2017
- Graph Theory - Spring 2016, Spring 2014
- Preparation for Calculus - Fall 2013

Arizona State University

- (Graduate course) Graph Theory (Assistant) - Spring 2013
- (Graduate course) Applied Analysis (Assistant) - Fall 2012
- (Graduate course) Enumerative Combinatorics (Assistant) - Fall 2011, Fall 2010
- Calculus for Engineers II - Summer 2011
- Calculus for Engineers I - Spring 2010
- Calculus with Analytic Geometry II (Recitation) - (3 semesters)

Grants

- NSF Grant “Global Structures in Graphs and Directed Graphs”, \$130,029, 8/2022 – 7/2025
- NSF Grant “Factors in Graphs and Related Combinatorial Structures”, \$113,703, 8/2018 – 7/2023
- NSF Grant “Spare Discrete Structures”, awarded as a co-PI with PI József Balogh and fellow co-PI Jozef Skokan \$300,000, 6/2015 – 7/2018

Service

- Refereed papers for *Combinatorica*, *Journal of Graph Theory*, *The Electronic Journal of Combinatorics*, *Proceeding of the London Mathematical Society*, *Discrete Mathematics*, *SIAM Journal of Discrete Math*, *Information Processing Letters*, *European Journal of Combinatorics*, *International Journal of Discrete Mathematics*, *Utilitas Mathematica*, and *Journal of Combinatorial Optimization*
- Served on multiple NSF grant panels
- Co-organizer (with B. Nagle) of the AMS Southeastern Fall Sectional Meeting Special Session “Recent Trends in Extremal Graph Theory”, Nov 2–3, 2019

- Co-organizer (with A. Bahmanian) of the AMS Special Session “Connections in Discrete Mathematics: Graphs, Hypergraphs, and Designs at the 2018 Joint Mathematics Meetings”, Jan 13, 2018
- Co-organizer (with A. Bahmanian) of AMS Central Spring Sectional Meeting Special Session “Extremal Problems in Graphs, Hypergraphs and Other Combinatorial Structures”, April 1–2, 2017
- Co-organizer (with L. DeBiasio) of AMS Central Spring Sectional Meeting Special Session “Extremal Graph Theory: Hypergraphs, Directed graphs, and Other Generalization”, March 14–15, 2015
- Co-organizer of the Graph Theory and Combinatorics Seminar at UIUC - Fall 2014–Spring 2017
- ASU math circle instructor
 - Recurrence Relations and Sorting Networks, February 22 & 29, 2012
 - Polyominoes, November 28, 2012
 - Hat Guessing Games and Hamming Codes, March 25, 2013

Additional degrees

University	Location	Degree	Date
Arizona State University	Tempe, AZ	MS in Computer Science	05/2004
University of Michigan	Ann Arbor, MI	BS in Computer Science	12/1995

Employment prior to PhD

Employer	Location	Position	Dates
eBay Inc (PayPal)	Scottsdale, AZ	Programmer	04/2006 to 11/2007
General Dynamics / Motorola	Scottsdale, AZ	Programmer	02/1996 to 03/2006