

College of William and Mary

Curriculum Vita Standard Format

Date: August 14, 2018

PERSONAL INFORMATION

1. Name: Gexin Yu

Office Address: Jones Hall 127, College of William and Mary, Williamsburg, VA 23187

Phone: (757) 221-2040; Email: gyu@wm.edu

2. Current Position: Associate Professor, Department of Mathematics

EDUCATION: Academic degrees, institutions and dates

Ph.D. in Mathematics, University of Illinois at Urbana-Champaign, USA, 2002-2006

M.S. in Mathematics, South China Normal University, China, 1997-2000

B.S. in Mathematics, South China Normal University, China, 1993-1997

ACADEMIC POSITIONS

4. Teaching and research positions, including dates

– August 2013–:

Associate Professor, Department of Mathematics, College of William and Mary

– May 2014–April 2019:

Chu-Tian Distinguished Professor, School of Mathematics and Statistics, Huazhong Normal University

– September 2008 – July 2013:

Assistant Professor, Department of Mathematics, College of William and Mary

– May 2010–June 2010:

Visiting Scholar, Department of Mathematics, Nanjing Normal University

– September 2006–August 2008:

NTT Assistant Professor (postdoc), Department of Mathematics, Vanderbilt University

HONORS, PRIZES AND AWARDS

Plumeri Award for Faculty Excellence, 2015, College of William and Mary

COURSES TAUGHT

6a. Courses taught

College of William and Mary

– Math 111 (Calculus 1): Fall 2008, Fall 2009, Spring 2015, Fall 2015

– Math 112 (Calculus 2): Fall 2011 (two sections)

– Math 211 (Linear Algebra): Spring 2013, Spring 2016, Fall 2016

- Math 214 (Foundations of Math): Spring 2009, Spring 2010, Fall 2010, Spring 2011, Fall 2011, Fall 2012, Fall 2014, Spring 2017, Fall 2017.
- Math 307 (Abstract Algebra): Spring 2011, Fall 2012, Spring 2013, Spring 2018
- Math 332 (Graph Theory and Its Applications): Spring 2017
- Math 410/490 (Special topics: graph theory): Fall 2009, Spring 2015
- Math 410 (Special topics: data science seminar): Spring 2015, Spring 2016
- Math 412 (Introduction to Number Theory): Fall 2010, Fall 2014, Fall 2015, Fall 2016, Fall 2017
- Math 432 (Combinatorics): Spring 2010, Spring 2016
- Math 400 (Mathematical Connections): Spring 2018
- Math 495/496 (honor thesis): almost every year

Vanderbilt University

- Spring 2008: Math 175(Calculus III), Math 274(Combinatorics)
- Fall 2007: Math 155A(Calculus I)
- Spring 2007: Math 150B(Calculus II), Math 274(Combinatorics)
- Fall 2006: Math 150B(Calculus II)

6b. Students supervised:

REU students supervised in College of William and Mary:
(supported by my National Science Foundation grant and CSUMS grant)

- Junda An (Summer 2018, partially honor fellowship)
- Yingxu Mu (Summer 2018, EXTREEMS-QEDS)
- Hangwei Zhuang (honor thesis, Fall 2017-Spring 2018), finished with honors
- Emilee Cardin (Summer 2017, Monroe scholarship)
- Eric Chai (Summer 2017, EXTREME-QEDS, co-advised with Chi-Kwong Li)
- Joel Monroe (Summer 2017, EXTREME-QEDS)
- Santana Afton (Summer 2016, EXTREME-QEDS)
- Matthew Swartz (Summer 2016, EXTREME-QEDS)
- Fangyi Xu (Summer 2015-Spring 2016, honors fellowship), finished with honors
- Michael Kopreski (Summer 2015, EXTREME-QEDS, Spring 2016-Fall 2016 honors thesis), finished with honors
- Chris Dunn (Summer 2015, EXTREME-QEDS)
- Heather Hopkins (Summer 2014-Spring 2015, honors fellowship)
- Chenyifu Chen (Fall 2014, Math 410)
- Siliang Chen (Summer 2013–Spring 2014, honors fellowship)
- Jiaqi Zong (Summer 2013)
- Allison Oldham (Summer 2012–Spring 2013, co-supervised with Rex Kincaid) finished with honors.
- Wei Xia (Summer 2012, co-supervised with Junping Shi)
- Owen Hill (Summer 2012–present)
- Alex Valentin (Summer 2011-Spring 2012) finished with honors

- Jeff Soosiah (Summer 2010-Spring 2012) finished with honors
- Ari Cukierman (Summer 2010-Spring 2011) finished with honors
- Chase Albert (Summer 2010–Spring 2011) finished with Honors
- Lee Williams (Fall 2009 and Spring 2010) finished with Honors

FELLOWSHIPS AND GRANTS

7a. All fellowships, grants, contracts awarded by outside agencies.

- *Some research on graph coloring*, National Science Foundation of China, Oversea Collaboration Grant, Jan. 2018-Dec. 2019, RMB 180000. (PI: Gexin Yu, co-PI: Xiangwen Li)
- *Selected problems on coloring, covering, and packing of graphs*, National Security Agency, July 2016-April 2019, \$39994. (PI: Gexin Yu)
- *EXTREEMS-QED: Computational and Statistical theory and techniques in the study of large data sets*, National Science Foundation, 2013-2018, \$880,000. (co-PI. PI: Junping Shi)
- *Graph linkage and packing problems*, National Security Agency, 2011-2014, \$39882 (PI: Gexin Yu)
- *Collaborative research on degree conditions for packing and covering problems on graphs*, National Science Foundation, 2007-2011, \$80,423.00. (PI: Gexin Yu)
- *CSUMS: Theory, Techniques, and Research in Computational Mathematics* (group REU grant) National Science Foundation, 2007–2012, \$668,775. (senior personnel, PI: Chi-Kwong Li)

7b. All summer grants and Faculty Research Assignments received from William and Mary

- Summer research grant from College of William and Mary, \$4000, Summer 2015.
- Summer research grant from College of William and Mary, \$5000, Summer 2011.

RESEARCH

8a. Refereed publications in periodicals, chapters in books, and conference proceedings (the names with a * are undergraduate students, and the names with a ** are graduate students)

- [58] Strong chromatic index of graphs with maximum degree four (with Mingfang Huang and Mike Santana), accepted by Electronic Journal of Combinatorics.
- [57] Planar graphs without 4-cycles and close triangles are $(2,0,0)$ -colorable, (with Heather Hoskins*, Runrun Liu**, Jennifer Vandenbussche), *J. of Comb. Optim.*, 36 (2018) 346–364.
- [56] On strong edge-coloring of graphs with maximum degree four (with Jian-Bo Lv** and Xiangwen Li), *Discrete Applied Math.*, 235 (2018), 142–153.
- [55] Maximum average degree and relaxed coloring (with Michael Kopreski*). *Discrete Math.* 340 (2017), no. 10, 2528-2530.
- [54] A note on chromatic number and induced odd cycles (with Baogang Xu and Xiaoya Zha), *Electronic J. of Combinatorics*, 24 (4) (2017), P4.32. (8 pages)
- [53] A relaxation of the strong Bordeaux Conjecture (with Ziwen Huang** and Xiangwen Li), *J. of Graph Theory*, accepted, DOI: 10.1002/jgt.22208. (18 pages)
- [52] An integer linear program for mixed-weight open locating-dominating sets, (with Robin Givens**, Rex Kincaid, and Weizheng Mao), 52st Annual Conference on Information Systems and Sciences (CISS2018), March 21-22, 2018, Princeton University. <https://doi.org/10.1109/CISS.2018.8362259>. (Robin Givens is a Ph.D. student at CS department)

- [51] Covering 2-connected 3-regular graphs with disjoint paths, to appear in *Journal of Graph Theory*.
- [50] The strong chromatic index of $(3, \Delta)$ -bipartite graphs (with Minfang Huang and Xiangqian Zhou), *Discrete Math.*, 340 (2017), no. 5, 1143–1149.
- [49] Every planar graph without 3-cycles adjacent to 4-cycles and without 6-cycles is $(1,1,0)$ -colorable, (with Ying Bai** and Xiangwen Li), *J. Comb. Optimization*, 33 (2017), 1354–1364.
- [48] Mixed-Weight Open Locating-Dominating Sets (with Robin Givens**, Rex Kincaid, and Weizheng Mao), 51st Annual Conference on Information Systems and Sciences (CISS2017), March 22-24, 2017, John Hopkins University. <https://doi.org/10.1109/CISS.2017.7926110>. (Robin Givens is a Ph.D. student at CS department)
- [47] Extremal permutations in routing cycles (with Junhua He, Louis A. Valentin* and Xiaoyan Yin), *Electronic Journal of Combinatorics*, Volume 23, Issue 3 (2016), Paper P3.47.
- [46] An Upper Bound on the Number of Circular Transpositions to Sort a Permutation (with Anke van Zuylen, James Bieron*, Frans Schalekamp), *Inform. Proc. Letter*, 116 (2016) 718–722.
- [45] Planar graphs without 5-cycles and intersecting triangles are $(1,1,0)$ -colorable (with Runrun Liu** and Xiangwen Li). *Discrete Math.* 339 (2016), no. 2, 992–1003.
- [44] Strong chromatic index of subcubic planar multigraphs (with A.V. Kostochka, X. Li, W. Ruk-sasakchai, M. Santana, T. Wang), *European J. Combin.* 51, (2016) 380–397.
- [43] Optimal open-locating-dominating sets in infinite triangular grids (with Rex Kincaid, Allison Oldham*), *Discrete Appl. Math.* 193 (2015), 139–144.
- [42] A relaxation of the Bordeaux Conjecture (with Runrun Liu** and Xiangwen Li), *European J. Combin.* 49 (2015), 240–249.
- [41] Strong edge-colorings of k -degenerate graphs, *Graphs and Combin.*, 31 (2015), no. 5, 1815–1818.
- [40] New Bounds on the Minimum Density of a Vertex Identifying Code for the Infinite Hexagonal Grid (with A. Cukierman*), *Disc. App. Math.*, **161** (2013), no. 18, 2910–2924.
- [39] Planar graphs without 4- or 5-cycles are $(3,0,0)$ -colorable (with O. Hill*, J. Xu, D. Smith, Y. Wang), *Discrete Math.*, **313** (2013), no. 20, 2312–2317.
- [38] Toward Efficient Channel Hopping for Communication Rendezvous in Dynamic Spectrum Access Networks (with Y. Zhang**, Q. Li, H. Wang, G. Zhu, and B. Wang), *IEEE/ACM Transactions on Networking* 22 (3), 889–902
- [37] Linear colorings of subcubic graphs (with Chun-Hung Liu), *European J. of Combinatorics* **34** (2013) 1040-1050.
- [36] Connectivities for k -knitted graphs and for minimal counterexamples to Hadwiger’s Conjecture (with K. Kawarabayashi) *J. Comb. Theory Ser. B*, **103** (2013), no. 3, 320–326.
- [35] A relaxation of Steinberg’s Conjecture (with O. Hill*), *SIAM J. of Discrete Math* **27** (2013) 584–596.
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- before tenured
- [34] Equitable defective coloring of sparse planar graphs (with Lee Williams* and Jennifer Vandenburg), *Disc. Math* 312 (2012), no. 5, 957–962.
- [33] An extremal problem on group connectivity (with R. Luo and R. Xu), *European J. Combinatorics*, 33 (2012) 6, 1078–1085. (8 pages)
- [32] Permutations as Product of Parallel Transpositions (With C. Albert *, G. Strang, and C.K. Li), *SIAM J. Discrete Math.* 25 (2012), 1412–1417. (6 pages)
- [31] Graphs containing every 2-factor (with A. Kostochka) *Graphs and Combinatorics*, **28** (2012) 687–716(29 pages)
- [30] Linkage for the diamond and the path with four vertices (with Mark Ellingham and Mike Plummer), *Journal of Graph Theory*, **70** (2012) 241-261. (19 pages)
- [29] Linear Choosability of Sparse Graphs (with Dan Cranston), *Discrete Math.* 311 (2011), 1910–1917. (17 pages)

- [28] ETCH: Efficient Channel Hopping for Communication Rendezvous in Dynamic Spectrum Access Networks (with Yifan Zhang, Qun Li, and Baosheng Wang), IEEE Infocom, Shanghai, China, April 10-15, 2011. (acceptance rate: 16%).
- [27] Injective colorings of graphs with low average degree (with Dan Cranston and Seog-Jin Kim), *Algorithmica*, 60 (2011), no 3, 553–568. (16 pages)
- [26] Equitable coloring sparse planar graphs (with Rong Luo, Jean-Sebastien Sereni, and Chris Stephen), *SIAM J. Discrete Math.* 24 (2010), no. 4, 1572–1583 (12 pages)
- [25] Injective colorings of sparse graphs (with Dan Cranston and Seog-Jin Kim) 310 (2010), *Discrete Math.* No 21, 2965–2973. (9 pages)
- [24] A new bound on the density of vertex identifying codes for the infinite hexagonal grid (with Dan Cranston) *Electronic Journal of Combinatorics*, **16** R113 (2009). (16 pages)
- [23] Extremal graph packing problems: Ore-type versus Dirac-type (with H. Kierstead and A. Kostochka), in London Mathematical Society Lecture Note Series, published by Cambridge University Press, (2009). (32 pages)
- [22] On the pagenumbr of k-trees (with J. Vandenbussche, D.B. West), *SIAM J. on Discrete Mathematics*, **23** (2009) No. 3, pp. 1455–1464. (9 pages)
- [21] M-degrees and C_4 -free planar graphs (with O. Borodin, A Kostochka, and N. Sheikh), *J. Graph Theory* 60 (2009), no. 1, 80–85. (6 pages)
- [20] Ore-conditions implying 2-factors consisting of short cycles (with A. Kostochka), *Discrete Mathematics*, 309 (2009) 4762–4771. (10 pages)
- [19] Implications among linkage properties in graphs (with Q. Liu and D. West), *J. Graph Theory* 60 (2009), no. 4, 327–337. (11 pages)
- [18] Hamiltonian connectedness in 3-connected line graphs. (with H.-J. Lai, Y. Shao and M. Zhan), *Discrete Appl. Math.* 157 (2009), no. 5, 982–990. (8 pages)
- [17] On the minimum 2-wide widiameter of Cylces with Chords (with B. Liu and X. Hou) *Operation Research Transactions* (Chinese) 13 (2009) 1–5. (5 pages)
- [16] Packing of graphs with small product of sizes (with A. Kostochka), *Journal of Combinatorial Theory, Series B*, 98 (2008) 1411–1415. (5 pages)
- [15] On a graph packing conjecture of Bollobás, Eldridge and Catlin (with H. Kaul, A. Kostochka), *Combinatorica*, 28 (2008) 469–485. (17 pages)
- [14] Ore-condition and Z_3 -connectivity (with Rong Luo, Rui Xu and Jianhua Yin), *European J. of Combinatorics* 29 (2008) 1587–1595. (9 pages)
- [13] On Ore-type degree condition for a graph to be H -linked (with A. Kostochka), *J. Graph Theory*, 58 (2008) 14–26. (13 pages)
- [12] First-Fit chromatic numbers of planar and random graphs (with J. Balogh, S. Hartke, and Q. Liu), *SIAM J. on Discrete Mathematics* 22 (2008), 887–900. (14 pages)
- [11] Minimum degree conditions for H -linked graphs (with A. Kostochka), *Disc. Appl. Math* 156 (2008) 1542–1548. (7 pages)
- [10] Planar graphs with girth 9 can be edge-partitioned into a forest and a matching (with O. Borodin, A Kostochka, and N. Sheikh), *European J. of Combinatorics*, 29 (2008) 1235–1248. (14 pages)
- [9] An inequality for the group chromatic number of a graph (with Hong-Jian Lai and Xiangwen Li), *Discrete Mathematics*, 307 (2007) 3076–3080.
- [8] An Ore-type analogue of the Sauer-Spencer Theorem (with A. Kostochka), *Graphs and Combinatorics* 23 (2007) no 4, 419–424.
- [7] On extremal matrices of second large exponent by boolean rank (with B. Liu and L. You), *Linear Algebra and Application* 422 (2007) 186–197.
- [6] Ore-type graph packing problems (with A. Kostochka), *Combinatorics, Probability and Computing* 16 (2007), 167–169.

- [5] A lower bound for minimum degree in H -linked graphs (with R. Gould, A. Kostochka), *SIAM J. on Discrete Math (SIDMA)* 20 (2006), 829–840.
- [4] On Degree Conditions for a Graph to be k -linked (with K. Kawarabayashi, A. Kostochka), *Combinatorics, Probability and Computing* 15 (2006), 685–694.
- [3] Nowhere-zero Z_3 -flows through Z_3 -connectivity (with M. DeVos, R. Xu), *Discrete Mathematics* 306 (2006), 26–30.
- [2] An extremal problem for H -linked graphs (with A. Kostochka), *J. Graph Theory* 50 (2005), 321–339.
- [1] On maximal (k, b) -free sets of integers and its spectrum (with B. Liu and L. You), *Austra.. J. Combin.* 23 (2001), 211–215.

8b. Work in progress or submitted

- [1] Double-critical conjecture holds for claw-free graphs with independence number at least four (with Sarah Loeb and Martin Rolek), in preparation.
- [2] Planar graphs without 5-cycle and K_4^- are $(2, 0, 0)$ -colorable (with Yuxue Yin and Xiangwen Li), in preparation.
- [3] DP-3-coloring of planar graphs without $\{4, 9\}$ -cycles and two other small cycles (with Runrun Liu, Sarah Loeb, Martin Rolek, Yuxue Yin), in preparation.
- [4] Strong choice number of subcubic graphs (with Tianjiao Dai, Guanghui Wang, Donglei Yang), submitted.
- [5] DP-4-colorability of planar graphs without given two adjacent cycles (with Runrun Liu, Xiangwen Li, Kittikorn Nakprasit, Pongpat Sittitrai), submitted.
- [6] Planar graphs without cycles of lengths 4 and 5 and close triangles are DP-3-colorable (with Yuxue Yin), submitted.
- [7] DP-3-coloring of planar graphs (with Runrun Liu, Sarah Loeb and Yuxue Yin), submitted.
- [8] Planar graphs without C_5 and K_4^- and adjacent 4-cycles are $(2, 0, 0)$ -colorable (with Xiangwen Li), submitted.
- [9] Planar graphs with girth at least 5 are $(3, 4)$ -colorable (with Ilkyoo Choi and Xia Zhang), submitted.
- [10] Strong edge-coloring of planar graphs with large girth (With Lily Chen, Kecai Deng and Xiangqian Zhou), submitted.
- [11] Planar graphs without 4-cycles and intersecting triangles are $(1, 1, 0)$ -colorable (with Runrun Liu and Xiangwen Li), submitted.
- [12] Perfect partition of some regular partite graphs, (with Jeff Soosiah* and C.-K. Li), submitted.
- [13] A note on strong edge-coloring of 2-degenerate graphs (with R. Luo), <http://arxiv.org/abs/1212.6092>.

8d. Articles published in non-refereed conference proceedings

- Extremal problems on packing of graphs (extended abstract) (with A. Kostochka), *Oberwolfach Report* 1(2006), 63-64.
- On H -linked graphs (extended abstract) (with A. Kostochka), *Oberwolfach Report* 1(2004), 42-44.

8e. Invited scholarly papers and talks

- Colloquium talk, University of Science and Technology of China, Hefei, China, June 25, 2018.
- Colloquium talk, Huaqiao University, Fujian, China, June 22, 2018.
- Colloquium talk, Jiangsu University, Zhengjiang, China, June 5, 2018.
- Colloquium talk, Henan University, Kaifeng, China, May 30, 2018.

- Colloquium talk and seminar talk, Central Florida University, March 8-10, 2018.
- 2018 International Workshop on Graph Theory, Ewha Womans University, Seoul, Korea, Jan 4-7, 2018. (Invited)
- Seminar talk, Virginia Commonwealth University, Nov. 8, 2017.
- Colloquium talk, George State University, Oct. 27, 2017.
- AMS special session at University of Central Florida, FL, Sept. 23-24, 2017 (Invited, 30 minutes)
- AMS special session at SUNY Buffalo, NY, Sept. 16-17, 2017 (Invited, 30 minutes)
- AMS special session at College of Charleston, SC, March 10-12, 2017. (Invited, 30 minutes)
- AMS special session at North Carolina State University, Nov 13-14, 2016 (Invited, 30 minutes)
- Colloquium talk, Shandong University, June 28, 2016.
- Colloquium talk, Shangdong Normal University, June 29, 2016.
- Colloquium talk, Tianjin Normal University, June 27, 2016.
- Lecture series on graph coloring at Huazhong Normal University, Wuhan, China, May, 2016 (four 1.5 hour lectures)
- International workshop on combinatorics, Nankai University, May 13-14, 2016 (invited, 30 minutes)
- Southwest International Conference (Ron Gould's special session), Florida Atlantic University, March 7-11, 2016 (Invited, 30 minutes)
- AMS special session at Loyola University Chicago, October 2-4, 2015 (Invited, 25 minutes)
- Colloquium talk, Beijing University of Chemical Technology, Beijing, China, July 10, 2015.
- Colloquium talk, Nanjing Normal University, Nanjing, China, June 28, 2015.
- Colloquium talk, Chongqing University of Technology, Chongqing, China, June 9, 2015 (to a group of more than 500 undergraduate students)
- Colloquium talk, Chongqing University of Technology, Chongqing, China, June 7, 2015 (to Computer science faculty members)
- Colloquium talk, Jiangsu University, Jiangsu, China, May 18, 2015.
- International workshop on graph theory and combinatorics, Hefei, China, May 15-17, 2015 (Invited, 25 minutes)
- AMS special session at University of Nevada at Las Vegas, April 18-19 2015 (Invited, 25 minutes)
- AMS special session at University of Alabama at Huntsville, Mar. 27-29, 2015 (Invited, 25 minutes)
- AMS special session at University of North Carolina Greensboro, Nov 8-9, 2014 (Invited, 25 minutes)
- AMS special session at University of Wisconsin, Eau Claire, Sept 20-21, 2014 (Invited, 25 minutes)
- SIAM minisymposium on EXTREEMES QEDS, Chicago, July 9, 2014 (Invited, 25 minutes)
- International Workshop on Graph Theory, Zhejiang Normal University, China, May 28-31, 2014 (Invited, one hour)
- Colloquium talk, Hubei University, Wuhan, China, May 26, 2014.
- Colloquium talk, Huazhong Normal University, Wuhan, China, April and May, 2014.
- Colloquium talk, South China Normal University, Guangzhou, China, May 9, 2014.
- Colloquium talk, UESTC, chengdu, China, May 28, 2014
- AMS special session at University of Knoxville, Knoxville, Mar 22-23, 2014 (invited, 25 minutes)
- Colloquium talk, University of West Georgia, Nov. 1, 2013.
- AMS special session at University of Louisville, Oct. 4-6, 2013. (Invited, 25 minutes)

- Seminar talk, Wright State University, Oct. 1, 2013.
- Colloquium talk, Wright State University, Sept. 27, 2013.
- Seminar talk at Virginia Commonwealth University, Sept. 24, 2013.
- Colloquium talk, Tongji University, August 26, 2013.
- Combinatorics Workshop at South China Normal University (in celebration of its 30th year of graduate program and 60th anniversary), July 5, 2013 (Invited, one hour).
- International Workshop on graph theory and combinatorics, Anhui University, Anhui, China, June 21-23, 2013. (Invited, 20 minutes).
- Colloquium talk, Tsinghua University, Beijing, China, June 13, 2013.
- Colloquium talk, University of Science and Technology of China, Hefei, Anhui, China, May 30, 2013.
- 2013 Summer workshop on graph theory, Jinhua, Zhejiang, China, May 26-27, 2013. (Invited, one hour).
- Seminar talk at Central China Normal University, Wuhan, Hubei, China, May 23, 2013.
- SIAM-SEAS Minisymposium at Knoxville, Mar. 22-24, 2013. (Invited, 25 minutes)
- AMS special session at University of Mississippi, March 02-03 2013. (Invited, 25 minutes)
- Colloquium talk, University of South Florida, Feb. 22, 2013.
- AMS special session at Akron, OH, Oct 19-21, 2012. (invited, 25 minutes)
- International conference on cycles in graphs, in conjunction with the 27th Annual Shanks Lecture, Vanderbilt University, May 30-June 2, 2012 (invited, 25 minutes)
- Colloquium talk, University of West Georgia, April 17, 2012.
- PME induction talk, March 30, 2012, College of William and Mary
- CSUMS lecture at WM, March 28, 2012
- AMS special session at University of South Florida, Tampa, FL, March 10-11, 2012. (Invited, 25 minutes)
- SIAM SEAS conference at Huntsville, AL March 24-25, 2012 (Invited, 25 minutes)
- University of Illinois, Urbana, Feb 14, 2012
- Virginia Commonwealth University, Feb 23, 2012
- AMS special session at Winston-Salem, NC, Sept 24-25, 2011. (Invited, 25 minutes)
- SIAM Minisymposium on Graph Theory, April 16-17, Charlotte, NC, 2011. (Invited, 25 minutes).
- Central Florida University, March 4, 2011.
- Atlanta Lecture Series in Combinatorics and Graph Theory II, Feb 26-27, 2011 (Invited, 30 minutes).
- George Washington University, Oct 28, 2010
- South China Normal University, Guangzhou, China. May 25, 2010
- Central China Normal University, Wuhan, China, June 22, 2010
- University of Science and Technology of China, Hefei, China. June 12, 2010
- Workshop in Combinatorics and Graph Theory at USTC, Hefei, China, May 28-30, 2010 (Invited, 30 minutes)
- Tongji University, Shanghai China, June 2, 2010
- Nanjing Normal University, May 20, and June 5, 2010 (two talks)
- University of West Georgia, April 25, 2010.
- AMS Southeastern Meeting in Boca Raton, FL, October 29-November 1, 2009 (Invited, 25 minutes)
- SIAM Minisymposium on Structure Graph Theory, Denver, July 7-11, 2009 (Invited, 25 minutes)

- AMS Central Meeting at University of Illinois at Urbana-Champaign, March 27-29, 2009 (Invited, 25 minutes)
- West Virginia University, February 19, 2009.
- SIAM Minisymposium on Graph Theory during Annual Joint Meeting, DC, January 6-7, 2009. (Invited, 25 minutes)
- AMS Sectional Meetings Western Michigan University, October 17-19, 2008
- Sixth Shanghai Conference on Combinatorics, Shanghai Jiaotong University, May 24-28, 2008
- The 32nd SIAM Southeastern-Atlantic Section Conference (SIAM-SEAS 2008), University of Central Florida, March 15-16, 2008.
- Research Seminar at Middle Tennessee State University, Feb 27, 2008
- AMS Special session at Middle Tennessee State University, Nov. 2007
- AMS Special session at DePaul University, Chicago, Oct. 2007
- SIAM Student Chapter Seminar at Emory University, Jan. 2007
- SIAM mini-symposium in New Orleans, Jan. 2007
- Research Seminar at Middle Tennessee State University, Oct. 2006
- Graph Theory Seminar at Georgia Institute of Technology, Nov. 2005
- Discrete Math Seminar at Arizona State University, Mar. 2004

8f. Contributed scholarly papers and talks

- Cumberland Conference May 2011 (Louisville), May 2007 (Emory), May 2002 (Mississippi)
- Graph Theory and Combinatorics Seminar at Vanderbilt University Sept. 2007, Jan. 2007, Oct. 2006.
- Combinatorics Seminar at UIUC Mar. 2006, Nov. 2005, Mar. 2005, Feb. 2004, Nov. 2003, Dec. 2002
- MIGHTY conferences Nov. 2006 (Fort Wayne), Sept. 2005 (MTSU), Nov. 2004 (BSU), Sept. 2003 (Valparaiso), Oct. 2001 (Oakland)
- 19th Midwest Conference on Combinatorics, Cryptography and Computing (MCCCC), Rochester Institute of Technology, Oct. 2005
- Graph Theory with Altitude (on the Occasion of Joan Hutchinson’s 60th Birthday), May 2005

8g. Reviews of books, software, etc.

Reviewer (2011) for “Mathematical Proofs—A Transition to Advanced Mathematics by Gary Chartrand, Albert D. Polillmeni, and Ping Zhang. ISBN-13: 978-0-321-39053-0.”

PROFESSIONAL SERVICE

9a. College committee service

- ISAC of the College, (elected, 2015-2017)
- Nomination and Election Committee of A&S (elected, 2016-2018)
- E-learning committee of the College (2016-2018)
- Undergraduate Curriculum Committee (2015-present)
- Goldwater scholarship committee of the College (2014-present)
- Personnel Committee of Mathematics (elected, 2016-2017)
- Merit Evaluation Committee of Mathematics (elected, 2010, 2011, 2012, 2013, 2015, 2017)

- Mathematics Colloquium Committee, 2012-2013
- A&S Affirmative Action Committee, in 2012-13
- Freshman advising (2009-present)
- Charles Center summer scholarship committee (2012)
- Committee to judge graduate research symposium awards (2010)
- Math Contest Committee, PI Mu Epsilon Committee (2008 to present)

9b. Other professional service not included in item 5 above

- Co-organizer of EXCILL 3, Chicago, August 8-10, 2016.
- Organizer of the mini-workshop on combinatorics at Wuhan, July 1-14, 2016.
- Co-organized (with Xiangwen Li) of the International Workshop on Combinatorics at Huazhong Normal University, May 30-June 1, 2015.
- Co-organizer of special session on graph theory at AMS Las Vegas, April 2015.
- Co-organizer of special session on graph theory at AMS-MAA Joint Meetings at Baltimore, Jan. 2014.
- Co-organizer of special session on graph theory at AMS regional conference at Washington D.C., March 2012.
- Co-organizer of special session on graph theory at AMS regional conference at Richmond, Nov 2010.
- Co-organizer of 21st Cumberland Conference on Graph Theory, Combinatorics and Computing, Vanderbilt University, May 17-19, 2008.
- Reviewer for Math Reviews.
- Refereeing for

J. of Combinatorial Theory, Series B; J. of Graph Theory; SIAM J. on Discrete Mathematics; Graphs and Combinatorics; Discrete Mathematics; Discrete Applied Math; European J. of Combinatorics; Linear Algebra and Applications; Proceedings of AMS; Arabian Journal for Science and Engineering (Saudi Arabia); Ars Combinatoria; Global Journal of Pure and Applied Mathematics (India); Bulletin of the ICA (Canada); Utility Math; Applied Math Letters; Computers and Mathematics with Applications; Discussiones Mathematicae Graph Theory.

- Professional membership:
American Mathematical Society, SIAM.