

College of William and Mary

Curriculum Vita Standard Format

Date: July 30th, 2008

PERSONAL INFORMATION

1. Name: Gexin Yu

Office Address: Jones Hall 127, College of William and Mary, Williamsburg, VA 23187
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Home address: 414 Merrimac Trail, Apt 3, Williamsburg VA 23185 Phone (217)299-8858

2. Current Position: Assistant Professor, Department of Mathematics

EDUCATION

3. 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

- September 2008 – :
Assistant Professor, Department of Mathematics, College of William and Mary
- September 2006–August 2008: NTT Assistant Professor, Department of Mathematics, Vanderbilt University

HONORS, PRIZES AND AWARDS

- 5a. Professional prizes, awards, honors (None)
- 5b. Editorial positions on scholarly journals (None)

COURSES TAUGHT

- 6a. Courses taught

College of William and Mary

- Fall 2008: Math 111 (Calculus I)

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 (None)

FELLOWSHIPS AND GRANTS

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

- *Collaborative research on degree conditions for packing and covering problems on graphs*, National Science Foundation, 2007-2010, \$80,423.00. (PI: Gexin Yu)

7b. All summer grants and Faculty Research Assignments received from William and Mary (None)

RESEARCH

8a. Refereed publications in periodicals, chapters in books, and conference proceedings

- Extremal graph packing problems: Ore-type versus Dirac-type (with H. Kierstead and A. Kostochka), to appear in *London Mathematical Society Lecture Note Series*, published by Cambridge University Press.
- Packing of graphs with small product of sizes (with A. Kostochka), to appear in *J. Comb. Theory Ser B*.
- Implications among linkage properties in graphs (with Q. Liu and D. West), to appear in *J. Graph Theory*.
- M-degrees and C_4 -free planar graphs (with O. Borodin, A Kostochka, and N. Sheikh), to appear in *J. Graph Theory*.
- On a graph packing conjecture of Bollobás, Eldridge and Catlin (with H. Kaul, A. Kostochka), to appear in *Combinatorica*.
- Ore-conditions implying 2-factors consisting of short cycles (with A. Kostochka), to appear in *Discrete Mathematics*.
- Ore-condition and Z_3 -connectivity (with Rong Luo, Rui Xu and Jianhua Yin), *European J. of Combinatorics* 29 (2008) 1587-1595.

- On Ore-type degree condition for a graph to be H -linked (with A. Kostochka), *J. Graph Theory*, 58 (2008) 14-26.
- 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.
- Minimum degree conditions for H -linked graphs (with A. Kostochka), *Disc. Appl. Math* 156 (2008) 1542-1548.
- Planar graphs with girth 9 can be edge-partitioned into a forest and a matching (with O. Borodin, A Kostochka, and N. Sheik), *European J. of Combinatorics*, 29 (2008) 1235-1248.
- An inequality for the group chromatic number of a graph (with Hong-Jian Lai and Xiangwen Li), *Discrete Mathematics*, 307 (2007) 3076-3080.
- An Ore-type analogue of the Sauer-Spencer Theorem (with A. Kostochka), *Graphs and Combinatorics* 23 (2007) no 4, 419-424.
- On extremal matrices of second large exponent by boolean rank (with B. Liu and L. You), *Linear Algebra and Application* 422 (2007) 186-197.
- Ore-type graph packing problems (with A. Kostochka), *Combinatorics, Probability and Computing* 16 (2007), 167-169.
- 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.
- On Degree Conditions for a Graph to be k -linked (with K. Kawarabayashi, A. Kostochka), *Combinatorics, Probability and Computing* 15 (2006), 685–694.
- Nowhere-zero Z_3 -flows through Z_3 -connectivity (with M. DeVos, R. Xu), *Discrete Mathematics* 306 (2006), 26-30.
- An extremal problem for H -linked graphs (with A. Kostochka), *J. Graph Theory* 50 (2005), 321-339.
- 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. Books manuscripts in preparation (None)

8c. Edited volumes (None)

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

- AMS Sectional Meetings Western Michigan University, October 17-19, 2008
- Sixth Shanghai Conference on Combinatorics, Shanghai Jiaotong University, May 24-28, 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

- 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
- Cumberland Conference May 2007 (Emory), May 2002 (Mississippi)
- 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. (None)

8h. Juried shows, exhibitions, and performances (None)

8i. Unjuried shows, exhibitions, and performances (None)

8j. Unrefereed publications not listed above (None)

8k. Research reports from grant or contract work (None)

8l. Performances by others of music, poetry, etc. you have written (None)

8m. Published software, audio, multimedia, etc. materials (None)

8n. Work in progress or submitted

- Injective colorings of sparse graphs, (With Daniel W. Cranston and Seog-Jin Kim), submitted.
- On pagenumber of k -trees (with D. West, and J. Vandenbussche), submitted.

PROFESSIONAL SERVICE

9a. College committee service

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

- Co-organizer of 21st Cumberland Conference on Graph Theory, Combinatorics and Computing, Vanderbilt University, May 17-19, 2008.
- Refereeing for
 - J. of Combinatorial Theory, Series B
 - J. of Graph Theory
 - SIAM J. on Discrete Mathematics
 - Graphs and Combinatorics
 - Discrete Mathematics
 - Arabian Journal for Science and Engineering (Saudi Arabia)
 - Ars Combinatoria
 - Global Journal of Pure and Applied Mathematics (India)
 - Bulletin of the ICA (Canada)
- Professional membership:
American Mathematical Society