

Curriculum Vita

Hao Wang

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1 Address

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2 Current Position

Ph.D. Candidate and Teaching Assistant
Department of Mathematical Sciences

3 Education

B.S. in Mathematics, Southeast University, Nanjing, China, 2001.
M.S. in Mathematics, Southeast University, Nanjing, China, 2003.

4 Research Interests

My primary research interests are associated with combinatorial design theory, coding theory, and graph theory. My previous work included theoretical study of new concepts of graph coloring, code synchronization problem while some of these results had been published. Currently, my tasks are to study a new combinatorial structure (difference systems of sets), and continue the research focusing on graph coloring. Together, my previous and current

work has required the use of a number of computer program techniques including C, C++, Java, Mathematica, Matlab.

5 Awards and Honors

- Fall 2001 - Spring 2003, Graduate Student Fellowship, Southeast University.
- June 2001, Outstanding Undergraduate Research Project/Report Award, Dept of Math., SEU.
- May 1998, Baoshan Iron & Steel Co. Scholarship, for outstanding undergraduate students, SEU.
- Fall 1996 - Spring 2001, Undergraduate Student Fellowship, Southeast University.

6 Publications

1. V. D. Tonchev, H. Wang, *An Algorithm for Optimal Difference Systems of Sets*, J. Discrete Optimization (accepted).
2. H. Wang, *A New Bound for Difference Systems of Sets*, J. Combinatorial Mathematics and Combinatorial Computing (accepted).
3. V. D. Tonchev, H. Wang, *Optimal Difference Systems of Sets with Multipliers*, Proc. 1st Intl. Computer Science Symp. in Russia (CSR 2006), Lecture Notes in Computer Science 3967, 612-618.
4. H. Wang, *Integer Programming of Circular Chromatic Numbers*, J. Southeast University, National Science Edition, 33 (2003), no. 4, 507-510 (in Chinese).

7 Publications in Preparation

1. H. Wang, *Sum-Coloring Number of Graph at Distance Two*.
2. H. Wang, *Isomorphic Factorizations of Circulant Graphs with Valency 6*.

8 Professional Meetings Attended

1. DAE 2005 (Design and Analysis of Experiments) Conference, Sponsored by Los Alamos National Laboratory and Brigham Young University, Santa Fe, NM on October 11-14, 2005.

Poster: *Algorithms for Optimal Synchronizable Codes.*

2. the Eighteenth Midwest Conference on Combinatorics, Cryptography and Computing, Rochester Institute of Technology, Rochester, NY, October 2004

Oral Presentation: *A New Bound and Algorithm for Difference Systems of Sets.*

9 Researching Experience

1. Laboratory Technician and Program Developer, the National Micro-electronic Lab at Southeast University, directed by Prof. Jing Wu, 2000.
2. Research Assistant, *New Concepts of Graph Coloring*, supervised by Prof. Zengmin Song, supported by the National Natural Science Foundation of China, 2001 - 2003.
3. Program Developer (intern), Jiangsu Province Institute of Electricity Design, summer 2002.
4. Research Assistant, Supervised by Prof. Vladimir D. Tonchev, supported by the National Science Foundation under Grant CCR-03106032, summer 2004 & 2005.

10 Teaching Experiences

- Spring 2006: Calculus with Technology I, Michigan Tech.
- Spring & Fall 2005: Data, Functions, & Graphs Plus, Michigan Tech.

11 Professional Society Memberships

American Mathematical Society, 2003 - present.

Chinese Society for Industrial and Applied Mathematics, 2001 - present.