

Curriculum Vitae

CONTACT INFORMATION:

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Department of Mathematical Sciences
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PERSONAL DATA:

Born: 03 January 1978
Citizenship: China P.R.
Marital status: married to Rongrong Lai

CURRENT POSITION:

Ph.D Candidate and Teaching Assistant
Department of Mathematical Sciences
Michigan Technological University, Houghton, MI, 49931, U.S.A.

CAREER OBJECTIVE:

A research position in combinatorial design theory, coding theory, and graph theory.

EDUCATION:

M.S. Mathematics, Southeast University, China, June 2003.
B.S. Mathematics, Southeast University, China, June 2001.

AWARDS AND HONORS:

- Fall, 2001 – Spring 2003, Graduate Student Fellowship, Southeast University.
- June, 2001, 1st Undergraduate Research Project, 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.

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.

EXPERIENCE

- Summer 2004 & 2005: Research Assistant, Supervised by Prof. Vladimir D. Tonchev, Supported by the National Science Foundation under Grant CCR-03106032.
- Fall 2003-Spring 2005: Teaching Assistant, Dept of Math. MTU.
- Summer 2002: Program Developer, Jiangsu Province Institute of Electricity Design.
- Fall 2001-Spring 2003: Research Assistant, *New Concepts of Graph Coloring*, Supervised by Prof. Zengmin Song, Supported by the National Natural Science Foundation of China
- Summer & Fall 2000: Laboratory Technician and Program Developer, the National Microelectronic Lab at Southeast University, directed by Prof. Jing Wu.

PUBLICATIONS:

Hao Wang, *A New Bound for Difference Systems of Sets*, J. Combinatorial Mathematics and Combinatorial Computing (accepted).

Hao Wang, *Integer Programming of Circular Chromatic Numbers*, J. Southeast Univ Nat. Sci 33 (2003), no. 4, 570-510 (in Chinese).

Manuscripts Submitted

Vladimir D. Tonchev and Hao Wang, *Optimal Difference Systems of Sets with Multipliers*, International Computer Science Symposium.

Vladimir D. Tonchev and Hao Wang, *An Algorithm for Difference Systems of Sets*, Journal of Combinatorial Optimization.

Manuscripts In Preparation

Hao Wang, *Sum-Coloring Number of Graph at Distance Two*.

Thesis and Dissertation

Master Thesis: *the List Labeling-number of Graph*.

PROFESSIONAL MEETINGS ATTENDED:

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: Hao Wang, *Algorithms for Optimal Synchronizable Codes.*

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

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

PROFESSIONAL SOCIETY MEMBERSHIPS

2003-Present American Mathematical Society.

2001-Present Chinese Society for Industrial and Applied Mathematics.