

Wei-Tian Li

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EDUCATION

- **University of South Carolina**, Columbia, SC
Ph.D. in Mathematics Summer 2011
Thesis title: Extremal Problems on Families of Subsets with Forbidden Subposets
Advisor: Professor Jerrold R. Griggs
- **National Taiwan University**, Taipei, Taiwan
Master in Mathematics 2003
Thesis title: Coloring Reduced Kneser Graphs
Advisor: Professor Ko-Wei Lih
- **National Taiwan University**, Taipei, Taiwan
Bachelor of Science in Mathematics 2001

RESEARCH INTERESTS

Combinatorics, Graph Theory, Graph Coloring, Extremal Set Theory, Combinatorial Geometry.

PUBLICATIONS

- Coloring Reduced Kneser Graphs, Master Thesis, (2003), 32 pages.
- Routing Numbers of Cycles, Complete Bipartite Graphs, and Hypercubes, (with Linyuan Lu and Yiting Yang), *SIAM J. Discrete Math.* 24, (2010), pp. 1482-1494
- Diamond-free Families, (with Jerrold R. Griggs and Linyuan Lu), accepted by *Journal of Combinatorial Theory Ser. A*.
- Extremal Problems on Families of Subsets with Forbidden Subposets, Dissertation, (2011), 106 pages.
- The Partition Method for Poset-free Families, (with Jerrold R. Griggs), submitted.
- Uniformly L-bounded Posets, in preparation

PROFESSIONAL EXPERIENCE

University of South Carolina, Columbia, SC

- Teaching Assistant Fall 2005 to Spring 2006
- Graduate Instructor Fall 2006 to Fall 2010

Institute of Mathematics, Academia Sinica, Taiwan

- Research Assistant Fall 2002 to Spring 2003, Summer 2005, Summer 2009

National Taiwan University, Taiwan

- Teaching Assistant Fall 2001 to Spring 2003

OTHER EXPERIENCE

University of South Carolina, Columbia, SC

- Treasurer of Taiwanese Student Association at USC Fall 2006 to Spring 2007
- President of Taiwanese Student Association at USC Fall 2007 to Spring 2008
- Member of the Event Committee of Mathematics Department Fall 2008 to Spring 2011

Military Service in Army, Taiwan
• Second Lieutenant of the Artillery

Fall 2003 to Spring 2005

ACADEMIC HONORS

- **Outstanding Thesis Prize**, Taiwan Combinatorial Mathematics Conference for Novices 2003
- **Summer Dissertation Fellowship**, University of South Carolina 2011

COURSES TAUGHT

Full Semester Instructor

- College Algebra, Business Calculus, Calculus I and II, Finite Math

Substitute Lecturer

- Abstract Algebra, Discrete Math(undergraduate), Discrete Math(graduate)

REFEREEING AND REVIEWING

- Discrete Mathematics
- Graph and Combinatorics
- Journal of Combinatorial Theory Ser. A
- Networks
- SIAM Journal on Discrete Mathematics
- Discrete Applied Mathematics
- Journal of Combinatorics

CONFERENCE AND SEMINAR PRESENTATIONS

- *An Overview of Sum Query Problems*, USC Comb. Seminar, Columbia, SC, Apr., 2009
- *The Lubell Function and Forbidden Subposets*, USC Comb. Seminar, Columbia, SC, Feb., 2010
- *The Lubell Function and \mathcal{P} -free Families, Series I* (invited talk), USC Regional Campuses Mathematics Seminar, Sumter, SC, Feb., 2010
- *The Lubell Function and Full Chains in Boolean Lattices - Finding the Maximum Possible Collections of Subsets Avoid Some Bad Configurations*, USC GSD, Columbia SC, Apr., 2010
- *The Lubell Function and \mathcal{P} -free Families, Series II* (invited talk), USC Regional Campuses Mathematics Seminar, Lancaster, SC, Apr., 2010
- *Partition the Set of Full Chains to find the Largest Families in the Boolean Lattice*, 23rd Cumberland Conf. on Comb., Graph Theory, and Comp., Univ. of Mississippi, MS, May, 2010
- *Diamond Free Families*, USC SIAM Student Chapter Seminar, Columbia, SC, Oct., 2010
- *A Better Upper Bound on the Size of Diamond-free Families*, USC Comb. Seminar, Columbia, SC, Nov., 2010
- *Poset-free Families in Boolean Lattices*, 2011 Joint Mathematics Meetings(JMM), New Orleans, LA, Jan., 2011
- *Uniform Posets*, USC Comb. Seminar, Columbia, SC, Feb., 2011
- *The Largest Poset-Free Families and the Maximum Lubell Function Value*, AMS 2011 Spring Southeastern Section Meeting(Special Session), Statesboro, GA, Mar., 2011
- *Routing Numbers of Cycles, Complete Bipartite Graphs, and Hypercubes*, 35th SIAM SEAS Conference(Minisymposia), UNC at Charlotte, NC, Mar., 2011
- *Sperner's Theorem and Some Related Extremal Problems on Families of Subsets of Finite Sets*, Math Club Talk, California State University at Los Angeles, CA, Apr., 2011

- *Recent Work on the Extremal Problems of Families of Subsets with a Forbidden Subposet*, CCMS' ANTC Seminar, Pomona College, Claremont, CA, Apr., 2011
- *Estimating the Size of the Largest Families not Containing Tree-like Posets*, 24th Cumberland Conf. on Comb., Graph Theory, and Comp., Univ. of Louisville, KY, May, 2011
- *Routing Numbers and Fractional Routing Numbers of Graphs*, CSUMS Seminar, William and Mary College, Williamsburg, VA Jul., 2011

CONFERENCES ATTENDED

- Extremal Combinatorics @Illinois, University of Illinois at Urbana Champaign, IL Nov., 2006
- New Directions in Algorithms, Combinatorics, and Optimization, Georgia Institute of Technology, GA May, 2008
- 24th Clemson mini-Conference on Discrete Mathematics and Algorithms, Clemson University, SC Oct., 2009
- 23rd Cumberland Conference on Combinatorics, Graph Theory, and Computing, University of Mississippi, MS, May, 2010
- 15th SIAM Meeting on Discrete Mathematics (DM10), Austin, TX, Jun., 2010
- 2011 Joint Mathematics Meetings, New Orleans, LA, Jan., 2011
- ALS on Graph Theory and Combinatorics II, Georgia State University, GA, Feb., 2011
- AMS 2011 Spring Southeastern Section Meeting, Statesboro, GA, Mar., 2011
- 35th SIAM Southeastern Atlantic Section Conference, UNC at Charlotte, NC, Mar., 2011
- ALS on Graph Theory and Combinatorics III, Georgia Inst. of Tech., GA Apr., 2011
- 24th Cumberland Conference on Combinatorics, Graph Theory, and Computing, University of Louisville, KY, May, 2011

August 1, 2011