Wang, Xiaofeng (Alex)

Department of Mathematics and Actuarial Science
Indiana University Northwest
3400 Broadway, Gary, IN, 46408
Email: Wang287@iun.edu

EDUCATION

2003-2009   West Virginia University (WV, USA)   PhD in Mathematics
                     Thesis title: "Graph Coloring and Flows"
                     Advisor: Dr. Cun-Quan Zhang

1998-2002   Fudan University (Shanghai, China)   BA in Mathematics

ACADEMIC EXPERIENCE

2010-present   Assistant Professor of Mathematics and Actuarial Science, and
                     Actuarial Science Advisor, Indiana University Northwest (IN)

- Actuarial Science students advising.
- Undergraduate senior student thesis advising, topics including: Graph Theory, Regression analysis, Time Series analysis, etc.
- Course development:
  1. Design new course: M425 Graph (Network) Theory and Combinatorial Theory (Fall 2012)
  2. Course revision: M469 Applied statistical Techniques (Fall 2013)
- Actuarial Science program development
  1. Receive VEE courses approval from Society of Actuary (SOA)
  2. Receive UCAP approval from Society of Actuary (SOA)
- Supervisor of Dual Credit Calculus course for Hammond Academy of Science and Technology
- Member of various Committees on Campus
- Courses taught:
  A 100: Fundamentals of Algebra
  M 100: Basic Mathematics
  M 118: Finite Mathematics
  M 119: Brief Survey of Calculus
  M 125: Pre-calculus Mathematics
  M 216: Analytic Geometry and Calculus II
  M 301: Applied Linear Algebra
  M 320: Theory of Interest
  M 360: Elements of Probability
  M 366: Elements of Statistical Inference
  M 391: Foundations of the Number Systems
  M 393: Bridge to Abstract Mathematics
  M 413: Introduction to Analysis I
  M 425: Graph (Network) Theory and Combinatorial Theory
  M 451: The Mathematics of Finance

M 469: Applied Statistical Techniques
M 485: Life Contingencies I
M 493: Senior Thesis in Mathematics
T 103: Mathematics for Elementary Teachers III

2009-2010   Visiting Assistant Professor of Mathematics and Actuarial Science,
             Robert Morris University (PA)
- Actuarial Science students advising.
- Actuarial Science students' research advising: Worldwide insurance industry comparison
- Served as a member of application team to qualify the actuarial program at RMU for SOA CAE (Center of Actuarial Excellence)
- Course taught:
  MATH 2040: Finite Math and Applied Calculus
  MATH 2070: Calculus with analytic geometry I
  MATH 2170: Calculus with analytic geometry II
  MATH 3090: Calculus with analytic geometry III
  STAT 3140: Probability/Math Statistics I
  ASCI 4200: Statistical Modeling I

2008-2009   Lecturer of Mathematics,
             West Virginia University (WV)
- Course taught:
  MATH 156: Calculus with analytic geometry II
  MATH 251: Calculus with analytic geometry III

2003-2008   Teaching Assistant of Mathematics
             West Virginia University (WV)
- Course taught:
  MATH 126: College Algebra (Recitation Leader)
  MATH 155: Calculus with analytic geometry I
  MATH 156: Calculus with analytic geometry II

INDUSTRIAL EXPERIENCE
2002-2003   Actuary, Allianz Life Insurance Company (China)
- Product development
- Actuarial modeling and profit testing
- Statutory valuation system maintenance
- Expense analysis and TAS (Tillinghast Actuarial Software) operation
- Compiled pricing reports for the chief Actuary and the registration files for CIRC (China Insurance Regulatory Committee)

RESEARCH INTEREST
- Graph Theory
- Discrete Optimization
- Actuarial Science Education

PUBLICATIONS

[1] Zhengke Miao, **Xiaofeng Wang**, Cun-Quan Zhang, *Hamilton circuits and essential girth of claw free graphs*, Graph and Combinatorics, Available online first (2015)

[2] Zhengke Miao, **Xiaofeng Wang**, Cun-Quan Zhang, *Unique Fulkerson coloring of Petersen minor-free cubic graphs*, European Journal of Combinatorics, Volume 43, 165–171 (2015)

[3] **Xiaofeng Wang**, Taoye Zhang, Brandon Kimes, Dianlin Li, *Supereulerian Graphs and Small Matching Number*, International Journal of Mathematics and Statistics, Volume 16, Issue 2 (2015)

[4] Jessica Ann Carr, **Xiaofeng Wang**, Dong Ye, *Packing resonant hexagons in fullerenes*, Discrete Optimization, Volume 13, 49–54 (2014)

[5] Erling Wei, Wenliang Tang, **Xiaofeng Wang**, *Flows in 3-edge-connected bidirected graphs*, Frontiers of Mathematics in China. Volume 6, Issue 2, 339-348 (2011)

[6] Rongxia Hao, Jianbing Niu, **Xiaofeng Wang**, Cun-Quan Zhang, Taoye Zhang, *A Note on Fulkerson coloring*, Discrete Math. 309, Issue 13, 4235-4240 (2009)

[7] **Xiaofeng Wang**, Cun-Quan Zhang, Taoye Zhang, *Nowhere zero 4-flow in almost Petersen-minor free graph*, Discrete Math. 309, Issue 5, 1025-1032 (2009).

PAPERS SUBMITTED

1. Cycle double covers and long circuits of graphs, (with R. Xu, D. Ye), Journal of Combinatorics.

PAPERS IN PREPARATION

1. Incomplete positive integer flows, with Rongxia Hao, Cunquan Zhang, Taoye Zhang.
2. On Permutation Graphs and Fulkerson Conjecture, with Scott Payne.
3. On classification of Uniquely Fulkerson colorable cubic graphs.

CONFERENCE TALKS

Classification of Fulkerson Covering, The 27th Cumberland Conference on Combinatorics, Graph Theory and Computing, WVU (2014)

Fulkerson Coloring of Some Families of Snarks, Joint Mathematics Meetings, Washington, DC (2009)

AFFLIATIONS

Member of SOA (Society of Actuary)

Member of AMS (American Mathematics Society)

TEACHING AWARDS

IUN Board of Trustees' Teaching Award (2015)

IUN Founders Day Teaching Award nomination (2014)

IUN Founders Day Teaching Award nomination (2013)

IUN Founders Day Teaching Award nomination (2012)

IUN Founders Day Teaching Award nomination (2011)

HERF Supplementary Teaching Fellowship for excellent teaching assistants during the 2004-05, 2005-06, 2006-07, 2007-08 academic years (West Virginia University)

RESEARCH GRANTS

IUN Summer Faculty Fellowship in Research (2015)

IUN Summer Faculty Fellowship in Research (2012)

IUN Summer Faculty Fellowship in Research (2011)