# Han XIAO

# CONTACT

Address Department of Mathematics

Run Run Shaw Building University of Hong Kong

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# **EDUCATION**

Ph.D. in Combinatorial Optimization from University of Hong Kong 2011-2016

Supervisor: Prof. Wenan Zang

Thesis: Polyhedral methods in combinatorial optimization

M.Sc. in Operations Research from Ocean University of China 2008-2011

Supervisor: Prof. Qizhi Fang

Thesis: Algorithms for reliable facility location problem

B.Sc. in Applied Mathematics from Ocean University of China 2004-2008

## **ACADEMIC EXPERIENCE**

#### Senior Research Assistant (part-time)

2015-present

University of Hong Kong

Teaching Assistant 2011-2015

University of Hong Kong

Courses taught: Matrix theory and its applications; Introduction to mathematical analysis; Linear algebra; Multivariable calculus and linear algebra; Fundamental concepts of mathematics.

Teaching Assistant 2008-2011

Ocean University of China

Courses taught: Probability theory; Probability and statistics; University mathematics

#### RESEARCH INTERESTS

Combinatorial Optimization

Algorithmic Game Theory focusing on core solvability

Polyhedral Combinatorics with emphasis on packing and covering in hypergraphs

Design and Analysis of Algorithms mostly arising in the above areas

#### **PUBLICATIONS**

[1] Q. Fang, H. Xiao, and S. Zhu. Top-d rank aggregation in web meta-search engine. In *Frontiers in Algorithmics*, pages 35–44. Springer, 2010.

- [2] H. Xiao. On kernel Mengerian orientations of line multigraphs. SIAM J. Discrete Math. Under review. arXiv:1507.06053.
- [3] H. Xiao. Packing feedback arc sets in reducible flow graphs. J. Comb. Optim. doi:10.1007/s10878-015-9922-6.
- [4] H. Xiao and W. Zang. Finding kernels in orientations of Berge claw-free graphs. Working paper.
- [5] H. Xiao and W. Zang. Packing cycles in semicomplete digraphs. Working paper.

# **AWARDS AND HONORS**

# Postgraduate Scholarship

2011 - 2015

University of Hong Kong

#### Outstanding Graduates

2011

Ocean University of China

# PROGRAMMING LANGUAGES

Wolfram Language Proficient
Python Intermediate
C Basic
MATLAB Basic

# PROFESSIONAL MEMBERSHIPS

ACM (Association for Computing Machinery)
SIAM (Society for Industrial and Applied Mathematics)

## CONTRIBUTOR TO

GraphTheory (a package for graph theory in Wolfram language)
SAGEMATH (an open-source mathematics software system)
cddml (cddlib interface to Mathematica via MathLink)
cddwstp (cddlib interface to Mathematica via Wolfram Symbolic Transfer Protocol)

## **REFERENCES**

#### Prof. Wenan Zang

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