# Han XIAO

# CONTACT

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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

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. *Discrete Appl. 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)
VertexEnum (a package for polyhedral operation 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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Last updated: October 5, 2015