# Han XIAO

### CONTACT

Address Department of Mathematics

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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. doi:10.1007/978-3-642-14553-7\_6.

- [2] H. Xiao. On kernel Mengerian orientations of line multigraphs. 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 solvable orientations of claw-free Berge graphs. Working paper.

# **AWARDS AND HONORS**

# ${\bf Postgraduate~Scholarship}$

2011-2015

University of Hong Kong

#### **Outstanding Graduates**

2011

Ocean University of China

# **PROGRAMMING LANGUAGES**

Wolfram Language Python C Proficient Intermediate Basic

# PROFESSIONAL MEMBERSHIPS

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

### **CONTRIBUTOR TO**

GraphSuppl (a package for graph manipulation in Wolfram language)
SageMath (an open-source mathematics software system)
mcdd (a Mathematica interface to C-library cddlib)
VertexEnum (a package for polyhedron manipulation in Wolfram language)

# **REFERENCES**

#### Prof. Wenan Zang

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