IRENE LO

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EDUCATION

COLUMBIA UNIVERSITY. New York, NY

Candidate for Ph.D. in Operations Research (IEOR) *Sept 2013 - June 2018 (exp.)*

Advisors: Jay Sethuraman & Jacob Leshno.

PRINCETON UNIVERSITY Princeton, NJ

Bachelor of Arts in Mathematics, *Summa Cum Laude*, ***GPA: 3.98***. *Sept 2009 - June 2013*

RESEARCH INTERESTS

Market design, matching markets, school choice, games on networks, graph theory.

SELECTED AWARDS AND HONORS

Fu Foundation Presidential Distinguished Fellowship *2013-2018*

Harvey Fellowship *for Christian students with a vision to impact society, 2016-2018*

George B. Covington Prize in Mathematics *for excellence in mathematics, 2012-2013*

George B. Wood Prize *for the junior with the highest academic standing after the sophomore year*

Freshman First Prize *for the sophomore with the highest academic standing after the freshman year*

International Mathematical Olympiad *Silver 2008, Bronze 2007*

PUBLICATIONS & WORKING PAPERS

MARKET DESIGN

I. Feigenbaum, Y. Kanoria, I. Lo & J. Sethuraman. *Dynamic Matching in School Choice: Efficient Seat Reallocation After Late Cancellations*, **Job market paper**, Major Revision at Management Science.

J. Leshno & I. Lo. *The Cutoff Structure of Top Trading Cycles in School Choice*, submitted.

N. Immorlica, J. Leshno, I. Lo & B. Lucier. *Information Acquisition Costs of Matching Markets*, working paper.

GRAPH THEORY

M. Chudnovsky & I. Lo. *Decomposing & Clique-Colouring (Diamond, Odd Hole)-Free Graphs*, Journal of Graph Theory 86(1) (2017), 5-41.

E. Csóka, I. Lo., S. Norin, H. Wu & L. Yepremyan. *The Extremal Function for Disconnected Minors.* Journal of Combinatorial Theory, Series B 126 (2017), 162-174.

M. Chudnovsky, I. Lo, F. Maffray, N. Trotignon, K. Vušković. *Coloring Square-Free Berge Graphs.* submitted to Journal of Combinatorial Theory, Series B.

I. Lo. *A Structure Theorem for (Diamond, Odd Hole)-Free Graphs,* working paper.

I. Lo. *Misère Hackenbush Flowers.* preprint.

Invited Talks

"Dynamic Matching in School Choice: Efficient Seat Reallocation After Late Cancellations"
Workshop for Young Researchers - Cornell ORIE, Ithaca NY. *October 2017*

"Information Acquisition Costs of Matching Markets"
New York Computer Science & Economics Day, New York, NY. *May 2017*

"The Cutoff Structure of Top Trading Cycles in School Choice"
NBER Market Design Working Group Meeting, Cambridge MA. *October 2017*
"Young" Workshop on Economics and Computation, Tel Aviv, Israel. *January 2017*
Workshop on Advances in Market Design, Paris School of Economics, Paris, France. *June 2016*

Selected Conference Presentations

"Dynamic Matching in School Choice: Efficient Seat Reallocation After Late Cancellations"
INFORMS Annual Meeting 2017, Houston TX. *October 2017*
INFORMS APS Meeting 2017, Kellogg School of Management, Evanston IL. *July 2017*
MSOM Conference 2017, UNC Kenan-Flagler Business School, Chapel Hill NC. *June 2017*
Fourth International Workshop on Matching Under Preferences, Cambridge MA. *April 2017*

"Information Acquisition Costs of Matching Markets"
Third Workshop on Marketplace Innovation, Stanford CA. *June 2017*
New York Computer Science & Economics Day, New York, NY. *May 2017*

"A Simple Model for the Top Trading Cycles School Choice Mechanism"
INFORMS Annual Meeting 2017, Houston TX. *October 2017*
Fourth International Workshop on Matching Under Preferences, Cambridge MA. *April 2017*

Research Experience

Microsoft Research New England Cambridge, MA
Mentor: Nicole Immorlica. *Summer 2016*

Teaching Experience

Columbia University Science Honors Program New York, NY

Graph Theory By Example, *Course Instructor.* *Fall 2015 - Spring 2016.*
Class size: 28 students.

- Taught graph theory and additional mathematical concepts to 10th-12th graders
- Modified existing course material; resulted in increased student engagement

Columbia University Department of IEOR New York, NY

IEOR 4407 Game Theoretic Models of Operation, *Teaching Assistant.* *Fall 2015, Fall 2016*
Instructor: Jay Sethuraman. Class size: 74, 69 students.

- Ran weekly recitations for consolidating student understanding
- Developed grading rubric and solutions for homework, midterm and final
- Tested, improved and wrote questions for midterm and final
- Conducted stand-in lectures for instructor which were well-received by students

IEOR 4601 Pricing and Revenue Management, *Teaching Assistant.* *Spring 2014*
Instructor: Guillermo Gallego. Class size: 44 students.

- Ran weekly recitations for consolidating student understanding
- Oversaw the grading of homework, midterm and final

Academic Service

Program Committee: *Workshop on Mechanism Design for Social Good 2017*

Reviewer: *Math of Operations Research, Discrete Optimization, SODA 2018.*

References

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