

CONTACT INFORMATION

Website: <https://chengg04.github.io>

E-mail: guocheng0@gmail.com

RESEARCH INTERESTS

- Application areas: Energy markets, Nonconvex market pricing, Power systems, Computational mechanism design, Healthcare
- Methodologies: Copositive Programming, Stochastic programming, Integer programming, Mixed-integer nonlinear programming, Decomposition methods

EXPERIENCE

Clemson University, Clemson, SC
School of Mathematical and Statistical Sciences
 Incoming Assistant Professor

EDUCATION

University of Toronto, Toronto, ON 2017 - 2021
Department of Mechanical and Industrial Engineering
 Ph.D. in Industrial Engineering
 • Advisor: Merve Bodur

Columbia University, New York, NY 2015 - 2017
Department of Industrial Engineering and Operations Research
 M.S. in Operations Research

Wuhan University, Wuhan, China 2011 - 2015
School of Economics and Management
 B.A. in Economics
 B.S. in Mathematics
 • Hongyi Outstanding Graduates Award

PUBLICATIONS

Journal Articles

C. Guo, M. Bodur, D. M. Aleman, and D. R. Urbach, *Logic-based Benders Decomposition and Binary Decision Diagram Based Approaches for Stochastic Distributed Operating Room Scheduling*, **INFORMS Journal on Computing**, 2021. [\[pdf\]](#)

Submitted

C. Guo, M. Bodur, J. A. Taylor, *Copositive Duality for Discrete Markets and Games*, submitted, 2021. [\[pdf\]](#)

C. Guo, M. Bodur, D. J. Papageorgiou, *Generation Expansion Planning with Revenue Adequacy Constraints*, under review, 2021. [\[pdf\]](#)

PAPERS IN PREPARATION

A. Deza, **C. Guo**, M. Bodur, *A Multistage Stochastic Integer Programming Approach to Distributed Operating Room Scheduling*, in preparation.
 • Selected as a finalist in 2020 INFORMS Undergraduate OR Prize Competition.

C. Guo, M. Bodur, H. Nagarajan, *Tightening Quadratic Convex Relaxations for the AC Optimal Transmission Switching Problem*, in preparation.

HONORS AND AWARDS

MIP Workshop Student Travel Support, 2019
Bert Wasmund Graduate Fellowships in Sustainable Energy Research, 2018
MIE Graduate Student Travel Grant, 2018
Economics and Management School Scholarship, 2013 - 2014

TEACHING EXPERIENCE

University of Toronto, Toronto, ON

- MIE 562 - Scheduling (undergraduate elective / graduate) Fall 2019, Fall 2020
Tutorial teaching assistant
- MIE 335 - Algorithms and Numerical Methods (undergraduate core course) Winter 2019
Tutorial teaching assistant

Wuhan University, Wuhan, China

- Probability Theory (undergraduate core course) Fall 2014
Teaching assistant

STUDENT SUPERVISION

Anna Deza (co-supervised, B.A.Sc. 2020 → University of California, Berkeley Ph.D.)
Ryan Do (co-supervised, B.A.Sc. 2019 → University of Toronto M.Eng.)

CONFERENCES AND TALKS

Copositive Duality for Discrete Markets and Games

- INFORMS Annual Meeting, Anaheim, CA (upcoming) October 2021
- International Conference on Game Theory (poster), Virtual July 2021
- IPCO Conference (poster), Virtual June 2021
- CORS Annual Conference, Virtual June 2021
- MIP Workshop (poster), Virtual May 2021
- Grid Science Winter School (poster), Virtual January 2021
- Discrete Optimization Talks, Virtual December 2020
- INFORMS Annual Meeting, Virtual November 2020

Logic-based Benders Decomposition and Binary Decision Diagram Based Approaches for Stochastic Distributed Operating Room Scheduling

- INFORMS Annual Meeting, Seattle, WA October 2019
- DIMACS Workshop on MINLP (poster), Montreal, QC October 2019
- Optimization Days, Montreal, QC May 2019

Generation Expansion Planning with Revenue Adequacy Constraints

- INFORMS Annual Meeting, Seattle, WA October 2019
- MIP Workshop (poster), Boston, MA July 2019
- INFORMS Computing Society Conference, Knoxville, TN January 2019

ACADEMIC
SERVICE

- Reviewer for *INFORMS Journal on Computing*
- Session Chair for INFORMS Annual Meeting 2019

OTHER
ACTIVITIES

- INFORMS UofT Student Chapter (Honorable Mention, 2020), Vice President (2019-2021)
- Columbia IEOR Mentorship Program, Mentor (2018-2020)
- Wuhan U. Women Soccer Team, Captain (2013-2015)