

CONTACT INFORMATION

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

E-mail: cguo2@clemson.edu

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 2021 - present
School of Mathematical and Statistical Sciences
 Assistant Professor, area: Operations Research

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. J. Papageorgiou, *Generation Expansion Planning with Revenue Adequacy Constraints*, **Computers & Operations Research**, 2022. [\[pdf\]](#)

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*, rejected with invitation to resubmit at **Management Science**, 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

Clemson University

Instructor

- STAT 3090 - Introductory Business Statistics (undergraduate): Spring 2022

University of Toronto

Teaching Assistant

- MIE 562 - Scheduling (undergraduate/graduate): Fall 2019, Fall 2020
- MIE 335 - Algorithms and Numerical Methods (undergraduate): Winter 2019

Wuhan University

Teaching Assistant

- Probability Theory (undergraduate): Fall 2014

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 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

	<ul style="list-style-type: none"> • MIP Workshop (poster), Boston, MA 	July 2019
	<ul style="list-style-type: none"> • INFORMS Computing Society Conference, Knoxville, TN 	January 2019
ACADEMIC SERVICE	<ul style="list-style-type: none"> • Reviewer for <i>Production and Operations Management</i>, <i>Transportation Science</i>, <i>INFORMS Journal on Computing</i> • Session Chair for INFORMS Optimization Society Conference 2022; INFORMS Annual Meeting 2019, 2021; CORS Annual Meeting 2021 	
OTHER ACTIVITIES	<ul style="list-style-type: none"> • 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) 	