

Jingye Xu

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Research interests

optimization

Education

Georgia Institute of Technology

Atlanta, USA

Ph.D. candidate in Algorithms, Combinatorics and Optimization

2022 -

Advisors: Prof Santanu Dey and Prof Diego Cifuentes

University of Waterloo

Waterloo, Canada

Bachelor in Computer Science

2017 - 2022

Publications

Random projection with linear equalities and inequalities

Santanu Dey, Jingye Xu

Submitted to SIAM Journal on Optimization

Probabilistic analysis of dual decomposition on two-stage stochastic integer programs

Santanu Dey, Marco Molinaro, Jingye Xu

Under revision at Mathematical Programming

Asymptotically tight Lagrangian dual of smooth nonconvex problems via improved error bound of Shapley-Folkman Lemma

Santanu Dey, Jingye Xu

EC 2026 and under revision at Mathematical Programming

Lagrangian dual with zero duality gap that admits decomposition

Diego Cifuentes, Santanu S Dey, Jingye Xu

IPCO 2025 and under revision at Mathematical Programming

Branching with a pre-specified finite list of k -sparse split sets for binary MILPs

Santanu Dey, Diego Morán, Jingye Xu

Operations Research Letters 2026

Sensitivity analysis for mixed binary quadratic programming

Diego Cifuentes, Santanu Dey, Jingye Xu

IPCO 2024 and Mathematical Programming 2025

Computational complexity of decomposing a symmetric matrix as a sum of positive semidefinite and diagonal matrices

Levent Tunçel, Stephen Vavasis, Jingye Xu

Foundations of Computational Mathematics 2023

Selected honors	INFORMS Optimization Society Student Paper Prize Honorable Mention	2025
	INFORMS George Nicholson student paper competition finalist	2024
	MIP 2026 poster award Honorable Mention	2026
	Alice and John Jarvis Best Student Paper Award	2026
	• Awarded annually to one Ph.D. student in Georgia Tech ISyE across all disciplines	
	Shabbir Ahmed PhD Fellowship	2024
	• Awarded annually to one Ph.D. student in Georgia Tech ISyE in optimization	
Teaching	Teaching assistant, Georgia Institute of Technology	2023,2025,2026
	ISYE-6661: Linear Optimization - PhD level	
	ISYE-3331: Engineering Optimization - undergraduate level	
	ISYE-4031: Forecasting - undergraduate level	
Service	Referee: Mathematical Programming, SIAM Journal on Optimization, Mathematics of Operations Research, Discrete Applied Mathematics, SIAM journal on matrix analysis and applications, Open Journal of mathematical optimization, European Journal of Operational Research	
Talks/Posters	Copositive dual and sensitivity analysis of MBQP	
	Presentation at INFORMS Optimization Society	2024
	Presentation at IPCO 2024	2024
	Presentation at INFORMS Annual Meeting 2023	2023
	Poster at MIP 2023 workshop	2023
	Lagrangian dual with zero duality gap that admits decomposition	
	Presentation at IPCO 2025	2025
	Presentation at INFORMS Annual Meeting 2024	2024
	Poster at MIP 2024 workshop	2024
	Probabilistic analysis of Branch-and-Price on two-stage stochastic integer programs	
	Presentation at INFORMS Annual Meeting 2025	2025
	Poster at MIP 2025 workshop	2025
	Asymptotically tight Lagrangian dual of smooth nonconvex problems	
	Presentation at INFORMS Optimization Society	2025
	Poster at MIP 2026 workshop	2026
	Poster at IOE-ISyE-MS&E Rising Stars workshop	2026