Charles Thraves

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Current Position	**Department of Industrial Engineering, University of Chile** Assistant Professor	2017 - Present
Education	**Massachusetts Institute of Technology** Ph.D. in Operations Research	2012 - 2017
	University of Chile Master in Operations Management	2010 - 2011
	University of Chile Bachelor of Industrial Engineer	2005 - 2011
PhD Thesis	**New Applications in Revenue Management** Adviser: Georgia Perakis	2017
Master Thesis	**Pricing Strategies with Strategic Consumers** Adviser: José Rafael Correa	2011

Publications

Effectiveness and impact of nirsevimab in Chile during the first season of a national immunisation strategy against RSV (NIRSE-CL): a retrospective observational study
Joint work with: Torres, J.P., Saur, D., Goic, M., Pacheco, J., Trigo, N., Del Solar, F., Neira, I., Daz, G., O?Ryan, M., Basso, L.
The Lancet Journal of Infectious Disease, 2025, ELSEVIER

Cost-savings and health impact of strategies for prevention of Respiratory Syncytial Virus with nirsevimab in Chile based on the integrated analysis of 20192023 national databases: A retrospective study
Joint work with: Saur, D., ORyan, M., Torres, J.P., Trigo, N., Daz, G., Goic, M., Pacheco, J., Aguilera, P., Caro, A., Basso, L.
Journal of Infection and Public Health, 2025, ELSEVIER

Optimizing pit stop strategies in Formula 1 with dynamic programming and game theory
Joint work with: Aguad, F.
European Journal of Operations Research, 2024, INFORMS

Affinities and Complementarities of Methods and Information Sets in the Estimation of Prices in Real Estate Markets
Joint work with: Bozanic-Leal, M., and Goic, M.
Journal of Forecasting, 2024, Wiley

Analytics Saves Lives During the COVID-19 Crisis in Chile
Joint work with: Basso, L., Goic, M., Olivares, M., Sauré, D., et al.
Informs Journal on Applied Analytics, 2023, INFORMS

On the Optimization of Pit Stop Strategies via Dynamic Programming

Joint work with: Carrasco, F.
Central European Journal of Operations Research, 2022, Springer

On the Resource Allocation for Political Campaigns
Joint work with: Morales, S.
Production and Operations Management, 2021, Wiley

On a Variation of Two-part Tariff Pricing of Services: A Data-Driven Approach
Joint work with: Perakis, G.
MSOM, 2021, INFORMS

Consumer Surplus Under Demand Uncertainty
Joint work with: Coehn, M., and Perakis, G.
Production and Operations Management, 2021, Wiley

The effect of correlation and false negatives in pool testing strategies for COVID-19
Joint work with: Basso, J. L., Salinas, V., Saure, D., and Yankovic, N.
Health Care Management Science, 2021, Springer

Contingent Preannounced Pricing Policies with Strategic Consumers
Joint work with: Correa, J. R., and Montoya, R.
Operations Research, 2016, INFORMS

Submitted Papers/Working Progress	**Parametric Estimation Under Diffuse Observations: An Application On Election Polls** Working paper with Morales, S.
	Estimating Checkout Lines with Transaction Data Working paper with Olivares, M., Guerra, R., and Carrasco, F.
	Competition and Externalities in Green Technology Adoption Working paper with Perakis, G.
	Own Brand: Who benefits from it? Working paper
	Political choice estimation using demographic and voters' topic opinions Working paper with Piña, C.
Refereed Conference Proceedings	**Competition and Externalities in Green Technology Adoption** 2015 Sustainable Operations SIG, MSOM Toronto 2014 MSOM Seattle
	Contingent Preannounced Pricing Policies with Strategic Consumers 2012 MSOM New york
Invited Talks	**On the Resource Allocation for Political Campaigns** Spring 2020 Catholic University, Santiago, Chile
	On the Resource Allocation for Political Campaigns Spring 2019 University Adolfo Ibañez, Santiago, Chile
Academic Achievements	**Best undergraduate teaching award in the Faculty of Physics and Mathematics** 2024

Best full-time teaching award in the Department of Industrial Engineering	2024
Franz Edelman Award: "Analytics Saves Lives During the Covid Crisis in Chile" 2022	
Best Student Paper at POMS: College of Supply Chain Management	2015
Ranked number one of the Master in Operations Management	
Best teaching assistant of 2010	2011
Best teaching assistant of 2011	2012
Distinguish student during years	2005 - 2009
Gold medal in the national (Chilean) math olympics	2002

Research Internships

University of Columbia   Winter 2011
Worked with Nicolás Stier-Moses on a problem in games and optimization. Also audited two courses.

Working Experience

Apple   Summer 2015
Internship   Cupertino, CA
Develop an optimization tool to improve the supply chain process resulting in savings of several millions of dollars each coming year. The tool is able to solve formulate, solve, and output on-the-fly the different business rules of the problem in procurement meetings.

CODELCO   Spring 2011
Advance Excel Course   Santiago, Chile
Teach as a private consultant the main tools of Microsoft Excel in ten classes, reviewing exercises to put in practice the wide range of functions, shortcuts, macros and other features that this software provides.

Falabella   Summer 2009
Consultancy   Santiago, Chile
Worked on a model to predict sales of every store in Chile based on econometric regressions with specific independent variables for each of the stores.

Bank Itaú Chile   Summer 2009
Internship   Santiago, Chile
Create a worksheet to value a derivative (Interest Rate Swap), considering the different financial calendars, interest rates and other specifications.

Teaching (University of Chile)

Undergraduate:

Probability [IN3141-1]	Fall 2025
Probability [IN3141-1]	Spring 2024
Probability [IN3141-1]	Fall 2024
Probability [IN3141-1]	Spring 2023
Probability [IN3141-1]	Fall 2022
Probability [IN3141-1]	Spring 2022
Probability [IN3141-1]	Fall 2022
Probability [IN3141-1]	Spring 2021
Probability [IN3141-1]	Fall 2021
Operations Management I [IN4703-1]	Spring 2020
Operations Management I [IN4703-2]	Fall 2020
Operations Management I [IN4703-2]	Spring 2019
Operations Management I [IN4703-2]	Fall 2019
Operations Management I [IN4703-1]	Fall 2018
Operations Management I [IN4703-1]	Fall 2018
Operations Management II [IN4704-2]	Spring 2011

Graduate:

	Introduction to R and Python - Master in Business Analytics	Fall 2025
	Optimization - Master in Business Analytics	Spring 2024
	Operations Management [IN75R-1/DPDIIGDE05-1] - MBA	Spring 2024
	Introduction to R and Python - Master in Business Analytics	Spring 2023
	Operations Management [IN75R-1/DPDIIGDE05-1] - MBA	Spring 2023
	Operations Management [IN75R-1/DPDIIGDE05-1] - MBA	Spring 2022
	Operations Management [IN75R-1] - MBA	Spring 2021
	Operations Management [IN75R-1/DPDIIGDE05-1] - MBA	Spring 2020
	Applied Methods for Data Analyses [IN5724-1] - Master in Operations Management Fall 2019	
	Operations Management [IN75R-1] - MBA	Spring 2019
	Operations Management [IN75R-1/IN7A6-1] - MBA	Spring 2018

Executive Education:

	Data Driven Decision Making - Data Analytics Certificate	Spring 2021
	Data Driven Decision Making - Data Analytics Certificate	Spring 2020
	Data Driven Decision Making - Data Analytics Certificate	Spring 2019

Teaching (Washington University St. Louis)	*Graduate:* **Implementing Strategy through Global Operations [MGT560Q] - MBA**	Spring 2022
Assistant teacher (MIT)	*Undergraduate:* **Optimization Methods in Management Science**	Spring 2015
	Graduate: MBA **Introduction to Operations Management**	Fall 2015
	Graduate: LGO (Leaders for Global Operations) **System Optimization and Analysis**	Summer 2016
	Graduate: Executive-MBA **Excel Class**	Spring 2016
Assistant teacher (University of Chile)	*Undergraduate:* **Advance Excel Course**	Fall 2012
	Modeling and Optimization [IN3701]	Fall 2011
	Operations Research [IN3702]	Fall 2010
	Economics [IN2201-2]	Spring 2009
	Operations Research [IN3702]	Spring 2009
	Advance Excel Course	Spring 2009
	Economics [IN2201-2]	Fall 2009
	Operations Research [IN44A]	Fall 2009
	Graduate: Master in Operations Management **Models and Algorithms of Optimization [IN77O-1]**	Fall 2011
	Stochastic Models for Engineering Systems [IN79O-1]	Spring 2010
	Graduate: Master in Management for Globalization	

Operations Management [IN7A6-1]   Spring 2011
Operations Management [IN7A6-1]   Spring 2010

Graduate: MBA
Advance Excel Course   Fall 2010

Computer Skills   C, Java, Python, Julia, VBA, Matlab, R, Excel, AMPL, GAMS, SPSS, StatFit, Eviews, Arena

Languages   **Spanish**   Native
                      English   Advanced

Nationality   **Chilean**