Gustavo Angulo

CONTACT INFORMATION

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RESEARCH INTERESTS

Theory and algorithms for integer, stochastic and robust optimization; and their applications in logistics and production planning.

EDUCATION

School of Industrial and Systems Engineering, Georgia Institute of Technology — **Atlanta, GA**
  Ph.D. in Operations Research — **2014**
  Thesis: *Integer Programming approaches for semicontinuous and stochastic optimization.*
  Advisors: Shabbir Ahmed and Santanu S. Dey.

School of Physical and Mathematical Sciences, Universidad de Chile — **Santiago, Chile**
  Master of Science in Operations Management, with Maximum Distinction — **2009**
  Thesis: *Optimization of empty container operations under uncertainty.*
  Advisor: Andrés Weintraub.
  Mathematical Engineer, with Maximum Distinction — **2009**
  Bachelor in Engineering Sciences, major in Mathematics, with Distinction — **2008**

ACADEMIC EXPERIENCE

Departamento de Ingeniería Industrial y Sistemas, Universidad Católica de Chile — **Santiago, Chile**
  Assistant Professor — 2015–present
CORE, Université catholique de Louvain — **Louvain-la-Neuve, Belgium**
  Postdoctoral Fellow in Operations Research — 2014–2015
Departamento de Ingeniería Industrial y Sistemas, Universidad Católica de Chile — **Santiago, Chile**
  Adjunct Instructor — 2014–2015
School of Industrial and Systems Engineering, Georgia Institute of Technology — **Atlanta, GA**
  Instructor for Engineering Optimization (ISyE 3133) — Fall 2013
School of Industrial and Systems Engineering, Georgia Institute of Technology — **Atlanta, GA**
  Graduate Research Assistant — 2009–2014
Universidad de Chile and Universidad de los Andes — **Santiago, Chile**
  Teaching Assistant — 2005–2008
National Mathematics Championship for High School — **Santiago, Chile**
  Volunteer — 2004–2009

INDUSTRIAL EXPERIENCE

Kimberly-Clark Latin American Operations — **Santiago, Chile**
  Intern — Summer 2012
ExxonMobil Research and Engineering — **Clinton, NJ**
  Intern — Summer 2011
Compañía Sudamericana de Vapores (CSAV) — **Valparaíso, Chile**
  Consultant Engineer — 2007–2008

PUBLICATIONS

- *Fixed-charge transportation problems on trees*, with M. Van Vyve. Submitted, 2015.
- *Improving the integer L-shaped method*, with S. Ahmed and S.S. Dey. Submitted, 2015.
- *Forbidden vertices*, with S. Ahmed, S.S. Dey, and V. Kaibel. Mathematics of Operations Research 40:350–360, 2015.
- *Semi-continuous network flow problems*, with S. Ahmed and S.S. Dey. Mathematical Programming 145:565–599, 2014
- *Forbidding extreme points from the 0-1 hypercube*, with S. Ahmed and S.S. Dey. Optimization Online, 2012.
- *A Strategic Empty Container Logistics Optimization in a Major Shipping Company*, with R. Epstein, A. Neely, A. Weintraub, F. Valenzuela, S. Hurtado, G. González, A. Beiza, M. Naveas, F. Infante, F. Alarcón, C. Berner, J. Catalán, C. González, and D. Yung. Interfaces 42:5–16, 2012.

HONORS AND AWARDS

Beca Chile (postdoctoral scholarship)   **2014**
  Awarded by the Chilean Government.

Postdoctoral Fellowship in Operations Research   **2014**
  Awarded by the Université catholique de Louvain.

Algorithms and Randomness Center Student Fellowship   **Spring 2014**
  For the research proposal *A polyhedral study of all-different polytopes*.

George Nicholson Student Paper Competition, honorable mention   **INFORMS 2013**
  For the paper *Semi-continuous network flow problems*.

Future Academician Colloquium   **INFORMS 2013**

Best Poster Competition, honorable mention   **MIP 2013**
  For the poster *Forbidden vertices*.

Travel Award   **MIP 2013**

PhD Student Scholarship   **ICSP 2013**
  To attend the XIII International Conference on Stochastic Programming, Bergamo, Italy.

Franz Edelman Award, finalist   **INFORMS 2011**
  For the work *A Strategic Empty Container Logistics Optimization in a Major Shipping Company*.

Ramón Salas Edwards Award   **2011**
  For the work *A Strategic Empty Container Logistics Optimization in a Major Shipping Company*.
  Awarded by the Chilean Institute of Engineers to the best engineering project in the country.

Beca Chile (doctoral scholarship)   **2010**
  Awarded by the Chilean Government.

John Morris Fellowship   **2009**
  Awarded by the Georgia Institute of Technology.

Kimberly-Clark Optimization Contest, winner team   **2009**
  For the best optimization tool among 20+ teams in Latin America.

Beca Universidad de Chile (undergraduate scholarship)   **2001**
  For academic excellence.

Nationwide highest overall scores in university admission tests   **2001**
  Perfect scores in Mathematics, Advanced Mathematics, and Physics; nationwide highest average score.

AFFILIATIONS AND PROFESSIONAL SERVICE

- Member of INFORMS, MOS, and SIAM.
- Refereed for Mathematical Programming, SIAM Journal on Optimization, Discrete Applied Mathematics, INFORMS Journal on Computing, and Transportation Science.
- Organized the session *Computational aspects of mixed-integer programming* at INFORMS Annual Meeting 2013 and *Advances in Discrete Optimization* at INFORMS Annual Meeting 2015.

COMPUTATIONAL SKILLS

- Operative Systems: Windows, Linux.
- Programming: C, C++, Matlab.
- Optimization software: IBM CPLEX Callable Library, IBM OPL, GAMS.
- Other: Microsoft SQL Server.