

# José Rafael Correa

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**Education**      **Massachusetts Institute of Technology**      Cambridge, MA  
Ph.D. in Operations Research, June 2004.  
Thesis Title: *Approximation Algorithms for Packing and Scheduling Problems*.  
Advisors: Prof. Michel X. Goemans (Department of Mathematics) and Prof. Andreas S. Schulz (Sloan School of Management).

**Universidad de Chile**      Santiago, Chile  
Ingeniero Civil Matemático, July 1999.  
Thesis Title: *Asignación de Flujos de Pasajeros en Redes de Transporte Público Congestionadas*.  
Advisor: Prof. Roberto Cominetti (Department of Applied Mathematics).

## Experience

Aug 2008-      **Universidad de Chile**      Santiago, Chile  
Present      Associate Professor, Department of Industrial Engineering

Jan 2005-      **Universidad Adolfo Ibáñez**      Santiago, Chile  
July 2008      Assistant Professor, School of Business

July 2004-      **Universidad de Chile**      Santiago, Chile  
Dec 2004      Postdoctoral Associate in Computer Science

## Awards

Tucker Prize finalist 2006. Awarded triennially by the Mathematical Programming Society (MPS), to an outstanding paper or thesis solely authored by a student. At most three finalists are chosen.  
More information at <http://www.mathprog.org/prz/tucker.htm>

TSL Best Paper Award 2002, obtained for the paper “Common-lines and passenger assignment in congested transit networks”. Also obtained an *Honorable Mention* in the 2006 competition for the paper “Selfish routing in capacitated networks.” This award is given annually by the Society on Transportation Science and Logistics of INFORMS. More information at <http://www.informs.org/article.php?id=635>

## Projects

Chilean Government research grant FONDECYT 1060035 (PI). Mar 2006 - Feb 2009.

The World Bank – Chilean Government research grant ACT08 “Networks in Mathematics and Engineering Sciences,” led by Marcos Kiwi. Dec 2005 - Nov 2008.

Chilean Government research grant FONDECYT 1050710 led by Marcos Kiwi. Mar 2005 - Feb 2006.

Brazilian Government research grant PROSUL 490333/2004-4 led by Yoshiko Wakabayashi. Jan 2005 - Dec 2006.

**Selected  
Publications**

- “Monotone covering problems with an additional covering constraint.” (with A. Levin). *Mathematics of Operations Research*, to appear.
- “The impact of oligopolistic competition in networks.” (with R. Cominetti and N.E. Stier Moses). *Operations Research*, to appear.
- “A geometric approach to the price of anarchy in nonatomic congestion games.” (with A.S. Schulz and N.E. Stier Moses). *Games and Economic Behavior*, to appear.
- “LP-based online scheduling: From single to parallel machines.” (with M. Wagner). *Mathematical Programming*, to appear.
- “Bin packing with controllable item sizes.” (with L. Epstein). *Information and Computation*, 206(8):1003–1016, 2008.
- “A fast asymptotic approximation scheme for bin packing with rejection.” (with W. Bein and X. Han). *Theoretical Computer Science*, 393:14–22, 2008.
- “Some remarks about factors of graphs.” (with M. Matamala). *Journal of Graph Theory*, 57(4):265–274, 2008.
- “Improved bounds for nonblocking 3-stage Clos networks.” (with M. X. Goemans). *SIAM Journal on Computing*, 37(3):870–894, 2007.
- “Fast, fair and efficient flows in networks.” (with A. S. Schulz and N. E. Stier Moses). *Operations Research*, 55(2):215–225, 2007.
- “A note on the precedence-constrained class sequencing problem.” (with S. Fiorini, N. E. Stier Moses). *Discrete Applied Mathematics* 155(3):257–259, 2007.
- “Bin packing in multiple dimensions: Inapproximability results and approximation schemes.” (with N. Bansal, C. Kenyon and M. Sviridenko). *Mathematics of Operations Research* 31(1):31–49, 2006.
- “The node-edge weighted 2-edge connected subgraph problem: linear relaxation, facets and separations.” (with M. Baiou). *Discrete Optimization* 3(2):123–135, 2006.
- “Resource augmentation in two-dimensional packing with orthogonal rotations.” *Operations Research Letters* 34(1):85–93, 2006.
- “Single machine scheduling with precedence constraints.” (with A. S. Schulz). *Mathematics of Operations Research* 30(4):1005–1021, 2005.
- “Selfish routing in capacitated networks” (with A. S. Schulz and N. E. Stier Moses). *Mathematics of Operations Research*, 29(4): 961–976, 2004.
- “Common-lines and passenger assignment in congested transit networks” (with R. Cominetti). *Transportation Science* 35(3): 250–267, 2001.