

Advising

Name, degree, date, (first position after).

Raimundo Saona, M.S. Applied mathematics, U. Chile, Aug 2017-Present.

Jackie Zhang, Postdoc, Mar 2017-Present.

Dana Pizarro, PhD Engineering Systems, U. Chile, Mar 2016-Present.

Victor Verdugo, PhD Engineering Systems, U. Chile/ENS Paris, Mar 2014-Present.

Andres Cristi, M.S. Operations Management, U. Chile, Aug 2016-Present.

Fan Wang, Mathematical Engineering, U. Chile, Jan 2017-Present.

Marc Schroeder, Postdoc, Sep 2016- Aug 2017 (Postdoc at RWTH Aachen).

Natalie Epstein, M.S. Operations Management, U. Chile, 2017 (McKinsey & Co.).

Patricio Foncea, M.S. Operations Management, U. Chile, 2017 (PhD Student MIT).

Felipe Munoz, PhD Engineering Systems, U. Chile, 2016 (Assistant Prof. U. Bio-Bio).

Ruben Hoeksma, Postdoc, Sep 2015- Aug 2016 (Postdoc at CMM).

Bastián Bahamondes, M.S. Operations Management, U. Chile, 2016 (Engineer at DII).

Eduardo Zúñiga, Mathematical Engineering, U. Chile, 2015 (PhD Student, U. Chile).

Andrés Perloth, M.S. Economics, U. Chile, 2015 (PhD Student, Stanford U.).

Alberto Vera, M.S. Operations Management, U. Chile, 2015 (PhD Student, Cornell U.).

José Verschae, Postdoc, March 2012- July 2014 (Assistant Prof. PUC Chile).

Jannik Matuschke, Postdoc, Sep 2013 - April 2014 (Postdoc U. Rome).

Pablo Koch, Mathematical Engineering, U. Chile, 2014 (Engineer at CMM).

Victor Verdugo, M.S. Operations Management, U. Chile, 2013 (PhD Student, U. Chile).

Orlando Rivera, Mathematical Engineering, U. Chile, 2012 (PhD Student UAI).

Omar Larré, M.S. Operations Management, U. Chile, 2012 (Larrain Vial).

Charles Thraves, M.S. Operations Management, U. Chile, 2011 (PhD Student, MIT).

Omar Larré, Mathematical Engineering, U. Chile, 2010 (M.S. Student, U. Chile).

Cristóbal Guzmán, Project Intern, March-Aug 2010 (PhD Student, Gatech).

Lorenzo Reus, Project Intern, Dec 2008-Aug 2009 (PhD Student, Princeton U.).

José Verschae, Mathematical Engineering, U. Chile, 2008 (PhD Student, TU-Berlin).

**Visiting
Students**

Florent Koechlin, visiting M.S. Student from ENS-Cachan, Jun-Aug 2016.

Tim Oosterwijk, visiting PhD Student from Maastricht, Mar-Jul 2016.

Olivier Marty, visiting M.S. Student from ENS-Cachan, Jun-Aug 2015.

Mona Rahn, visiting PhD student from CWI, Apr-Jun 2014.

Laurent Feuilleley, visiting M.S. Student from ENS-Cachan, Mar-Aug 2013.

Oscar Vasquez, visiting PhD student from Paris VI, Sep 2012-Jan 2013.

Sebastian Marban, visiting PhD student from Maastricht, Oct-Dec 2010.

**PhD Thesis
Committees**

Ronald Koch, PhD Mathematics, TU-Berlin, 2012; Sebastian Marban, PhD. Operations Research, U. Maastricht, 2012; Cheng Wan, PhD Mathematics, U. Paris VI, 2012; Hadi Minoeei, PhD Computer Science, U. Waterloo, 2013; Francisco Lopez, PhD Engineering UPC, Spain, 2014; Maria del Carmen Varaldo, PhD Mathematics U. Nacional de Rosario, Argentina, 2014; Alejandro Angulo, PhD Engineering Systems, U. de Chile, 2015.

Publications

Books and Chapters

M.X. Goemans and J.R. Correa (Eds.). IPCO 2013 Integer Programming and Combinatorial Optimization - 16th International Conference, Valparaiso, Chile, March 18-20, 2013. Proceedings Springer Lecture Notes in Computer Science 7801.

J.R. Correa, A. Hevia and M. Kiwi (Eds.). LATIN 2006 Theoretical Informatics. 7th Latin American Symposium, Valdivia, Chile, March 20-24, 2006, Proceedings Springer Lecture Notes in Computer Science, Vol. 3887.

J.R. Correa, N. Stier Moses. Wardrop Equilibria. Wiley Encyclopedia of Operations Research and Management Science, edited by J.J. Cochran. Wiley, 2011.

Journals

L. Briceno, J. Correa, A. Perlroth. Optimal continuous pricing with strategic consumers. *Management Science*, 63(8):2741–2755, 2017.

J. Correa, T. Harks, V. Kreuzen, J. Matuschke. Fare evasion in transit networks. *Operations Research*, 65(1):165–183, 2017.

J. Correa, V. Verdugo, J. Verschae. Splitting versus setup trade-offs for scheduling to minimize weighted completion time. *Operations Research Letters*, 44(4):469–473, 2016.

J. Correa, R. Montoya, C. Thraves. Contingent preannounced pricing policies with strategic consumers. *Operations Research*, 64(1):251–272, 2016.

F. Balmaceda, S. Balseiro, J. Correa, N. Stier-Moses. Bounds on the Welfare Loss from Moral Hazard with Limited Liability. *Games and Economic Behavior*, 95:137–155, 2016.

R. Cominetti, J. Correa, O. Larre. Dynamic Equilibria in Fluid Queuing Networks. *Operations Research*, 63(1):21–34, 2015.

J. Correa, O. Larre, J.A. Soto. TSP Tours in Cubic Graphs: Beyond 4/3. *SIAM Journal on Discrete Mathematics*, 29(2):915–939, 2015.

R. Cole, J.R. Correa, V. Gkatzelis, V. Mirrokni, N. Olver. Decentralized Utilitarian Mechanisms for Scheduling Games. *Games and Economic Behavior*, 92:306–326, 2015.

J. Correa, A. Marchetti-Spaccamela, J. Matuschke, L. Stougie, O. Svensson, V. Verdugo, J. Verschae. Strong LP Formulations for Scheduling Splittable Jobs on Unrelated Machines. *Mathematical Programming B*, 154(1-2):305–328, 2015.

J. Correa, L. Feuilloley, P. Perez-Lantero, J.A. Soto. Independent and Hitting Sets of Rectangles Intersecting a Diagonal Line: Algorithms and Complexity. *Discrete & Computational Geometry*, 53(2):344–365, 2015.

J.R. Correa and N. Megow. Clique partitioning with value-monotone submodular cost. *Discrete Optimization*, 15:26–36, 2015.

J.R. Correa, N. Figueroa, R. Lederman, and N.E. Stier Moses. Pricing with markups in industries with increasing marginal costs. *Mathematical Programming*, 146(1-2):143–184, 2014.

J.R. Correa, R. Lederman, and N.E. Stier Moses. Sensitivity analysis of markup equilibria in complementary markets. *Operations Research Letters* 42:173–179, 2014.

J.R. Correa, M. Queyranne. Efficiency of Equilibria in Restricted Uniform Machine Scheduling with Total Weighted Completion Time as Social Cost. *Naval Research Logistics*, 59(5):384–395, 2012.

J.R. Correa, M. Skutella, J. Verschae. The power of preemption in unrelated machines and applications to scheduling orders. *Mathematics of Operations Research*, 37(2):379–398, 2012 .

- F. Barahona, M. Baiou, J. Correa. On the p-median polytope and the intersection property: Polyhedra and algorithms. *SIAM J. Discrete Mathematics*, 25(1):1–20, 2011.
- R. Cominetti, J.R. Correa, T. Rothvoss, J. San Martin. Optimal selection of customers for a last-minute offer. *Operations Research*, 58(4):878–888, 2010.
- J.R. Correa, C.G. Fernandes, Y. Wakabayashi. Approximating a Class of Combinatorial Problems with Rational Objective Function. *Mathematical Programming B*, 124(1-2):255–269, 2010.
- R. Cominetti, J.R. Correa, N.E. Stier Moses. The impact of oligopolistic competition in networks. *Operations Research*, 57(6):1421–1437, 2009.
- J.R. Correa, A. Levin. Monotone covering problems with an additional covering constraint. *Mathematics of Operations Research*, 34(1):238–248, 2009.
- J.R. Correa, M. Wagner. LP-based online scheduling: From single to parallel machines. *Mathematical Programming*, 119(1):109–136, 2009.
- J.R. Correa, A.S. Schulz, N.E. Stier Moses. A geometric approach to the price of anarchy in nonatomic congestion games. *Games and Economic Behavior*, 64(2):457–469, 2008.
- J.R. Correa, L. Epstein. Bin packing with controllable item sizes. *Information and Computation*, 206(8):1003–1016, 2008.
- W. Bein, J.R. Correa, X. Han. A fast asymptotic approximation scheme for bin packing with rejection. *Theoretical Computer Science*, 393:14–22, 2008.
- J.R. Correa, M. Matamala. Some remarks about factors of graphs. *Journal of Graph Theory*, 57(4):265–274, 2008.
- J.R. Correa, M.X. Goemans. Improved bounds for nonblocking 3-stage Clos networks. *SIAM Journal on Computing*, 37(3):870–894, 2007.
- J.R. Correa, A.S. Schulz, N.E. Stier Moses. Fast, fair and efficient flows in networks. *Operations Research*, 55(2):215–225, 2007.
- J.R. Correa, S. Fiorini, N.E. Stier Moses. A note on the precedence-constrained class sequencing problem. *Discrete Applied Mathematics* 155(3):257–259, 2007.
- J.R. Correa, N. Bansal, C. Kenyon, M. Sviridenko. Bin packing in multiple dimensions: Inapproximability results and approximation schemes. *Mathematics of Operations Research* 31(1):31–49, 2006.
- J.R. Correa, M. Baiou. The node-edge weighted 2-edge connected subgraph problem: linear relaxation, facets and separations. *Discrete Optimization* 3(2):123–135, 2006.
- J.R. Correa. Resource augmentation in two-dimensional packing with orthogonal rotations *Operations Research Letters* 34(1):85–93, 2006.
- J.R. Correa, A.S. Schulz, Single machine scheduling with precedence constraints. *Mathematics of Operations Research* 30(4):1005–1021, 2005.
- J.R. Correa, A.S. Schulz, N.E. Stier Moses. Selfish routing in capacitated networks. *Mathematics of Operations Research*, 29(4): 961–976, 2004.
- R. Cominetti, J. Correa. Common-lines and passenger assignment in congested transit networks. *Transportation Science* 35(3): 250–267, 2001.

Conferences Several conference publications are preliminary versions of the journal articles above.

J. Correa, P. Foncea, R. Hoeksma, T. Oosterwijk, T. Vredeveld. Posted price mechanisms for a random stream of customers. EC 2017.

R. Cominetti, J. Correa, N. Olver. Long term behavior of dynamic equilibria in fluid queuing networks. IPCO 2017.

J. Correa, M. Kiwi, N. Olver A. Vera. Adaptive rumor spreading. WINE 2015.

J. Correa, J. de Jong, B. de Keijzer, M. Uetz. The curse of sequentiality in routing games. WINE 2015.

F. Abed, P. Chalermsook, J. Correa, A. Karrenbauer, P. Perez-Lantero, J. Soto, A. Wiese. On guillotine cutting sequences. APPROX 2015.

F. Abed, J.R. Correa, C.-C. Huang. Optimal Coordination Mechanisms for Multi-Job Scheduling Games. ESA 2014.

J.R. Correa, A. Marchetti-Spaccamela, J. Matuschke, O. Svensson, L. Stougie, V. Verdugo and J. Verschae. Strong LP formulations for scheduling splittable jobs on unrelated machines. IPCO 2014.

J.R. Correa, L. Feuilloley and J.A. Soto. Independent and Hitting Sets of Rectangles Intersecting a Diagonal Line. LATIN 2014.

J.R. Correa, A.S. Schulz, and N. Stier-Moses. The Price of Anarchy of the Proportional Allocation Mechanism Revisited. WINE 2013.

J.R. Correa, O. Larre, J.A. Soto. TSP Tours in Cubic Graphs: Beyond $4/3$. ESA 2012.

R. Cominetti, J.R. Correa, O. Larre. Existence and Uniqueness of Equilibria for Fows Over Time. ICALP 2011.

R. Cole, J.R. Correa, V. Gkatzelis, V. Mirrokni, N. Olver. Inner Product Spaces for MinSum Coordination Mechanisms. STOC 2011.

F. Balmaceda, S. Balseiro, J.R. Correa, N. Stier-Moses. Moral Hazard and Limited Liability: How Much Does It Cost? WINE 2010.

J.R. Correa, R. Lederman, N. Stier-Moses. Pricing with Markups under Horizontal and Vertical Competition. BQGT 2010.

J.R. Correa, M. Skutella, J. Verschae. The power of preemption in unrelated machines and applications to scheduling orders. APPROX 2009.

J.R. Correa and N. Figueroa. On the planner's loss due to lack of information in bayesian mechanism design. SAGT 2009.

J.R. Correa, C. Fernandes, M. Matamala, Y. Wakabayashi. A $5/3$ -Approximation for Finding Spanning Trees with Many Leaves in Cubic Graphs. WAOA 2007.

W. Bein, J.R. Correa, X. Han. A fast asymptotic approximation scheme for bin packing with rejection. ESCAPE 2007.

R. Cominetti, J.R. Correa, N. Stier-Moses. Network games with atomic players. ICALP 2006.

J.R. Correa, C. Fernandes, Y. Wakabayashi. Approximating rational objectives is as easy as approximating linear ones. SWAT 2006.

J.R. Correa, M.R. Wagner. LP-based online scheduling: from single to parallel machines. IPCO 2005.

J.R. Correa, A.S. Schulz, N. Stier-Moses. On the inefficiency of equilibria in congestion games. IPCO 2005.

M. Baiou, J.R. Correa. The node-edge weighted 2-edge connected subgraph problem: linear relaxation, facets and separation. GRACO 2005 (Currently LAGOS).

J.R. Correa, C. Kenyon. Approximation schemes for multidimensional packing. SODA 2004.

J.R. Correa. Near-optimal solutions to two-dimensional bin packing with 90 degree rotations. LACGA 2004 (Currently LAGOS).

J.R. Correa, M.X. Goemans. An approximate Knig's theorem for edge-coloring weighted bipartite graphs. STOC 2004.

J.R. Correa, A.S. Schulz. Single machine scheduling with precedence constraints. IPCO 2004.

J.R. Correa, A.S. Schulz, N. Stier Moses. Computational complexity, fairness, and the price of anarchy of the maximum latency problem. IPCO 2004.

**Plenary
Talks**

Tutorial at the 6th Workshop on Stochastic Methods in Game Theory, Erice, Italy, May 2017; Semi-plenary speaker at the annual international conference of the German Operations Research Society (GOR), Hamburg, Germany, September 2016; Keynote speaker at the 12th Latin American Theoretical Informatics Symposium (LATIN 2016), Ensenada, Mexico, April 2016; Plenary speaker at the 23rd International Conference on Game Theory, SUNY Stony Brook, NY, USA, July 2012; Plenary speaker at the 10th Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP 2011), Nymburk, Czech Republic, June 2011; Invited talk at the Chilean Institute for Operations Research Colloquium, Santiago, Chile, April 2010; First Workshop on New Challenges in Distributed Systems, Valparaiso, Chile, April 2009; 3rd European-Latin-American Workshop on Engineering Systems, Curicó, Chile, May 2007.

**Invited
Talks**

8th Journées Franco-Chiliennes D'Optimisation, Toulouse, France, July 2017; Seminar Hubert Mennickent, Concepcion, Chile, June 2017; 13th Seminaire POC, Universite Pierre et Marie Curie (Paris 6), September 2015; Universite Paris Dauphine, September 2015; University of Twente, May 2015; Catholic University of Chile, April 2015; Mathematical Aspects of Game Theory and Applications, Roscoff, France, June 2014; International School of Mathematics "Guido Stampacchia", Erice, Italy, September 2013; Short course at Université de Paris VI, France, June 2012; TU-Berlin, Germany, April 2012; Stern School of Business, New York University, New York, USA, September 2010; École Polytechnique Federal de Lausanne (EPFL), Lausanne, Switzerland, July 2010; Instituto Sistemas Complejos de Ingeniería, U. de Chile, Santiago, Chile, August 2009; Laboratoire LIMOS, Université Blaise Pascal, Clermont-Ferrand, France, February 2009; ISYE, Georgia Institute of Technology, Atlanta, USA, October 2008; École Polytechnique Federal de Lausanne (EPFL), Lausanne, Switzerland, July 2008; Scheduling Seminar, Schloss Dagstuhl, Germany, February 2008; TU-Berlin, Berlin, Germany, July 2007; Center for Operations Research and Econometrics, Université Catholique de Louvain, Louvain la Neuve, Belgium, May 2007; Department of Computer Science, Universidade de Sao Paulo, Sao Paulo, Brazil, December 2006; Tepper School of Business, Carnegie Mellon University, Pittsburgh, USA, November 2006; Université Blaise Pascal, Clermont-Ferrand, France, July 2006; Department of Industrial Engineering, Universidad de Chile, Santiago, May 2006; Graduate School of Business, Columbia University, New York, USA, February 2006; IBM T. J. Watson Research Center, Yorktown Heights, USA, February 2006; Department of Mathematics, Dortmund University, Dortmund, Germany, February 2005; Max Planck Institute für Informatik, Saarbrücke, Germany, February 2005; The Valparaiso Complex Systems Institute, Valparaiso, Chile, January 2007 and November 2004; Department of Applied Mathematics, Universidad de Chile, Santiago, Chile, August 2004; Center for Mathematical Modeling, Universidad de Chile, Santiago, Chile, July 2004.

**Conference
Talks**

Over 25 talks in international conferences and workshops in Operations Research, Computer Science, and Applied Mathematics.

Awards

Google Research Award Latin America 2017.

Selected in 2014 by LatinAmericanScience.org and revista "Que Pasa" as one of 30 notable latin american researchers under the age of 40.

Meritorious Service Award 2013. Awarded by the Journal *Operations Research* for exceptional reviewing work.

Member of the Global Young Academy (GYA) since December 2011.

Selected young scientist to participate in the World Economic Forum Meeting of the New Champions held in Dalian, China, September 2011.

JFIG paper competition finalist 2009. Awarded annually by the Institute for Operations Research and the Management Sciences (INFORMS) junior faculty interest group (JFIG), to an outstanding paper authored by untenured faculty.

Tucker Prize finalist 2006. Awarded triennially by the Mathematical Programming Society (MPS), at each International Symposium on Mathematical Programming, to an outstanding paper or thesis solely authored by a student, graduate or undergraduate. 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 INFORMS Society on Transportation Science and Logistics for the best paper in transportation or logistics published during the three preceding years. More information at <http://www.informs.org/article.php?id=635>

Universidad Adolfo Ibáñez "Intellectual Contribution Award": 2005, 2006 and 2007.

Academic Activities

Associate Editor: Mathematical Programming Series B (2014 – Present), Operations Research (2009 – Present), Acta Applicandae Mathematicae (2010 – 2015), RAIRO–Operations Research (2010 – Present).

Program Committees: WAOA 2017, WAOA 2016, CLAIO 2016, IPCO 2016, WINE 2015, WINE 2014, ISCO 2014, WADS 2013, MAPSP 2013, IPCO 2013, LAGOS 2013, LATIN 2012, CATS 2012, WINE 2011, NETGCOOP 2011, WAOA 2011, WAOA 2010, LATIN 2010, OPTIMA 2009, LAGOS 2009, HICSS 2009, LATIN 2008, HICSS 2008, LAGOS 2007, LATIN 2006.

Guest Associate Editor: Special issue of *Discrete Applied Mathematics* for LAGOS 2013, Special issue of *Algorithmica* for LATIN 2006.

Member Advisory Committee for ISMP 2021.

Panel Member for Mathematics at the National Fund for Scientific and Technological Development (FONDECYT), 2010–2012.

Ad-hoc reviewer for several academic journals, conferences, and for the funding agencies CONICYT (Chilean NSF) and ANR (French NSF).

Event Organization: IPCO 2013, March 2013 (as chair); Workshop in Social Networks, July 2012 (as chair); Summer Schools in Discrete Mathematics, every January since 2005; LATIN 2006, March 2006.

Grants as PI Chilean Government research grant Millennium Nucleus *Information and Coordination in Networks*. Nov 2011 - Oct 2014. Renewal Dec 2014 - Dec 2017.
Chile-Germany Collaborative Grant (CONICYT). Jun 2016 - Apr 2019.
Local coordinator for the Marie Curie International Research Staff Exchange Scheme project funded by the European Union (FP7), *European South-American Network for Combinatorial Optimization under Uncertainty*. Aug 2010 - Jul 2014.
Chilean Government grants FONDECYT 1160079, Mar 2016 - Feb 2019; FONDECYT 1130671, Mar 2013 - Feb 2016; FONDECYT 1090050, Mar 2009 - Feb 2013; FONDECYT 1060035, Mar 2006 - Feb 2009.

Industry Projects Santiago Transportation Authority (DTPM), Nov 2016 - Nov 2018: Modeling of evasion in public transit. Direct funding from DTPM and additional funding from FONDEF.
Ministry of Education (MINEDUC), Nov 2015 -Jan 2018: Mechanism design for the new school admission system in Chile. Direct funding from MINEDUC and additional funding from FONDEF.
Departamento de evaluación, medición y registro educacional (DEMRE), Jan 2012 - Jan 2014: New assignment algorithm for matching students to Universities.
Cuerpo de Bomberos de Santiago (Santiago Fire Fighters), June 2010 - December 2010: Effective response system for emergencies.
BeeOne S.A., Apr 2009 - Jan 2011: Data and modeling advisor for customer behavior in the banking industry.
Lafarge Chile, Dec 2008 - Jul 2009: Vehicle routing for dispatching dry products.
Viña San Pedro, Apr 2007 - Jun 2008: Production scheduling.

Media Press coverage during 2016 and 2017 in La Tercera and El Mercurio for the new school admissions assignment method.
Press coverage during 2013 in La Tercera and El Mercurio for the new student-university assignment method.
Radio Universidad de Chile 2012: Interview in the series “Milenio: en sintonía con la ciencia” as leader of one the Millennium Nucleus funded by the Ministerio de Economía.
La Tercera: Series of 10 articles on different topics in operations management, 2007.
Bits de Ciencia: Entre Investigación de Operaciones y Teoría de la Computación, 2011.

Duties Elected member of the Academic Council, School of Engineering, U. de Chile, 2012-2014.
Member of the Executive Education Board, Department of Industrial Engineering, U. de Chile, 2011-Present.
Elected member of the Academic Council, Department of Industrial Engineering, U. de Chile, 2011-2013.
School of Engineering Hiring committee member, U. de Chile, 2010-2012.
Graduate studies coordinator, Dep. of Industrial Engineering, U. de Chile, 2010-2011.
Director, Master in Operations Management, U. de Chile, 2009-2011, 2015-2017.
Founding Director, Ph.D. program in Management, UAI, 2007-2008.
Member of the UAI Intellectual Contribution Committee, 2005-2008.

Languages Native Spanish speaker, fluent in English and French.

Citizenship Citizen of Chile.