

Alexandre Belloni

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Research Interests

Econometrics and statistics, mechanism design, probabilistic methods, mathematical optimization, complexity theory, and applications to economics, management science, marketing and engineering.

Education

Massachusetts Institute of Technology, Cambridge, MA.
PhD in Operations Research, June 2006.

Institute for Pure and Applied Mathematics, Rio de Janeiro, Brazil.
MS in Mathematical Economics, June 2002.

Pontifical Catholic University, Rio de Janeiro, Brazil.
BS in Electrical Engineering, December 1999.

Editorial Activities

Area Editor for Operations Research, Machine Learning and Data Science (2018-2021)
Associate Editor for Econometric Theory (2017-2021)
Associate Editor for Journal of Business & Economic Statistics (2012-2018)
Associate Editor for Journal of Econometrics (2017-2020)
Associate Editor for Journal of the Royal Statistical Society, Series B (2017-2021)
Associate Editor for Management Science (2017-2018)
Associate Editor for Stochastic Systems (2017-2018)

Honors and Awards

2016-2018 F.M. Kirby Research Fellow
2014-2016 F.M. Kirby Research Fellow
2007 Young Researchers Competition in Continuous Optimization (First Prize)
2006-2007 IBM Herman Goldstine Postdoctoral Fellowship
INFORMS 2006 George Nicholson Student Paper Award (Second Prize)
IBM PhD Fellowship (2005-2006)
2005 Argonne-Chicago Institute of Computational Economics Fellowship
SIAM Student Travel Award (2005)
MIT Presidential Fellowship (2002-2003)
SIAM Student Travel Award (2002)

Professional Experience

- 2015 - present **Duke University, Fuqua Business School**, Durham, NC
Professor of Decision Sciences
- 2017 December **Yale University, Cowles Foundation**, New Haven, CT
Visiting Scholar
- 2017 March **University of Chicago, Booth School of Business**, Chicago, IL
Visiting Scholar
- 2012 - 2015 **Duke University, Fuqua Business School**, Durham, NC
Associate Professor with tenure of Decision Sciences
- 2014 Spring **MIT, Department of Economics**, Cambridge, MA
Visiting Scholar
- 2013 June **IMPA**, Rio de Janeiro, Brazil
Visiting Scholar
- 2012 January **Northwestern University, Kellogg School of Management, CMS-EMS**, Evanston, IL
Visiting Scholar
- 2011 - 2012 **Duke University, Fuqua Business School**, Durham, NC
Associate Professor of Decision Sciences
- 2011 January **MIT, Department of Economics**, Cambridge, MA
Visiting Scholar
- 2007 - 2011 **Duke University, Fuqua Business School**, Durham, NC
Assistant Professor of Decision Sciences
- 2010 May **IMPA**, Rio de Janeiro, Brazil
Visiting Scholar
- 2010 January **MIT, Department of Economics**, Cambridge, MA
Visiting Scholar
- 2009 January **IMPA**, Rio de Janeiro, Brazil
Visiting Scholar
- 2006 - 2007 **IBM T. J. Watson Research Center**, Yorktown Heights, NY
Herman Goldstine Post-Doctoral Fellow under supervision of Jon Lee
- 2006 - 2007 **MIT Sloan School of Management**, Cambridge, MA
Post-Doctoral Fellow under supervision of Robert M. Freund and Victor Chernozhukov
- Summer 2006 **MIT Sloan School of Management**, Cambridge, MA
Post-Doctoral Associate under supervision of Robert M. Freund and Victor Chernozhukov
- Fall 2005 **IBM T. J. Watson Research Center**, Yorktown Heights, NY

Submitted Papers

1. Quantile Graphical Models: Prediction and Conditional Independence with Applications to Financial Risk Management, with Mingli Chen and Victor Chernozhukov
2. Pivotal Estimation via Self-Normalization for High Dimensional Linear Models with Error-in-variables, with Victor Chernozhukov, Abhishek Kaul, Alexandre Tsybakov, Mathieu Rosenbaum
3. Confidence Bands for Coefficients in High Dimensional Linear Models with Error-in-variables, with Victor Chernozhukov, Abhishek Kaul
4. Computation of Optimal Dynamic Mechanism with Participation Requirements, with B. Chen and P. Sun
5. Valid Post-Selection Inference in High-Dimensional Approximately Sparse Quantile Regression Models, with V. Chernozhukov and K. Kato
6. Conditional Quantile Processes based on Series or Many Regressors, with Victor Chernozhukov and Iván Fernández-Vál
7. LASSO Methods for Gaussian Instrumental Variables Models, with Victor Chernozhukov and Christian Hansen

Publications

8. Uniformly Valid Post-Regularization Confidence Regions for Many Functional Parameters in Z-Estimation Framework, with V. Chernozhukov, D. Chetverikov, and Y. Wei (accepted at The Annals of Statistics, 2017)
9. High-dimensional Quantile Regression, with Victor Chernozhukov and Kengo Kato (Handbook of Quantile Regression, edited by Roger Koenker).
10. An R Package for Performing Nonparametric Series Quantile Regression, with Victor Chernozhukov, Ivan Fernandez-Val, Michael Lipsitz (accepted at R Journal, 2016)
11. Mechanism and Network Design with Private Negative Externalities, with Sasa Pekec and Changrong Deng (accepted at Operations Research, 2016)
12. Resource Management Under Demand Uncertainty and Private Information, with Giuseppe Lopomo and Shouqiang Wang (accepted at Management Science, 2016)
13. Linear and Conic Programming Approaches to High-Dimensional Errors-in-variables Models, with Mathieu Rosenbaum and Alexandre B. Tsybakov (accepted at Journal of the Royal Statistical Society: Series B, 2016)
14. Approximate group context tree, with Roberto I. Oliveira (accepted at The Annals of Statistics, 2016)
15. Program Evaluation with High-Dimensional Data, with Victor Chernozhukov, Ivan Fernandez-Val and Chris Hansen (accepted at Econometrica, 2016)
16. Post-Selection Inference for Generalized Linear Models with Many Controls, with Victor Chernozhukov and Ying Wei (accepted at Journal of Business & Economic Statistics, 2016)
17. An $\{\ell_1, \ell_2, \ell_\infty\}$ -Approach to High-Dimensional Errors-in-variables Models, with Mathieu Rosenbaum and Alexandre B. Tsybakov (Electronic Journal of Statistics 2016, Vol. 10, No. 2, 1729-1750)
18. Inference in High Dimensional Panel Models with an Application to Gun Control, with Victor Chernozhukov, Christian Hansen, and Damian Kozbur (accepted at Journal of Business & Economic Statistics, 2015)

19. On the Asymptotic Theory for Least Squares Series: Pointwise and Uniform Results, with Victor Chernozhukov, Denis Chetverikov and Kengo Kato (accepted at Journal of Econometrics, 2015)
20. Comments on “An Adaptive Resampling Test for Detecting the Presence of Significant Predictors,” with Victor Chernozhukov (accepted at Journal of American Statistical Association, 2015)
21. Escaping the Local Minima via Simulated Annealing: Optimization of Approximately Convex Functions, with Tengyuan Liang, Hariharan Narayanan and Alexander Rakhlin, Proceedings of The 28th Conference on Learning Theory (COLT), pp. 240–265, 2015.
22. Uniform Post Selection Inference for LAD Regression Models and Other Z-estimators, with Victor Chernozhukov and Kengo Kato (Biometrika (2015) 102 (1): 77-94)
23. Pivotal Estimation via Square-root Lasso in Nonparametric Regression, with Victor Chernozhukov and Lie Wang (The Annals of Statistics 42 (2), 757-788, 2014).
24. High-Dimensional Methods and Inference on Structural and Treatment Effects, with Victor Chernozhukov and Chris Hansen (Journal of Economic Perspectives, 28(2): 29-50, 2014).
25. Posterior Inference in Curved Exponential Families under Increasing Dimensions, with Victor Chernozhukov (The Econometrics Journal, Volume 17, Issue 2, pages S75S100, June 2014).
26. Inference on Treatment Effects After Selection Amongst High-Dimensional Controls, with Victor Chernozhukov and Christian Hansen (The Review of Economic Studies 81 (2), 608-650, 2014)
27. Sparse Models and Methods for Optimal Instruments with an Application to Eminent Domain, with Daniel Chen, Victor Chernozhukov and Christian Hansen (Econometrica, 2012, 80(6), 2369-2430)
28. Inference Methods for High-Dimensional Sparse Econometric Models, with Victor Chernozhukov and Chris Hansen, Advances in Economics and Econometrics, 10th World Congress of Econometric Society, Volume III, Econometrics, Edited by Daron Acemoglu, Manuel Arellano and Eddie Dekel, 245–295.
29. Least Squares After Model Selection in High-dimensional Sparse Models with Victor Chernozhukov (Bernoulli Volume 19, Number 2 (2013), 521-547, former title: “Post- ℓ_1 -penalized estimators in high-dimensional linear regression models”).
30. Optimal Admission and Scholarship Decisions: Choosing Customized Marketing Offers to Attract a Desirable Mix of Customers, with William Boulding, Richard Staelin, and Mitchell Lovett, Marketing Science July/August 31:621-636, 2012.
31. Square-root LASSO: Pivotal Recovery of Sparse Signals via Conic Programming with Victor Chernozhukov and Lie Wang (Biometrika (2011) 98 (4): 791-806).
32. On Multivariate Quantiles under Partial Ordering, with Robert L. Winkler (Annals of Statistics, Volume 39, Number 2 (2011), 1125-1179).
33. ℓ_1 -Penalized Quantile Regression in High-Dimensional Sparse Models, with Victor Chernozhukov (Annals of Statistics, Volume 39, Number 1 (2011), 82-130).
34. High-Dimensional Sparse Econometric Models, an Introduction, with Victor Chernozhukov, Inverse Problems and High-Dimensional Estimation, Springer Lecture Notes in Statistics, 2011, pp. 121-156.
35. Multi-dimensional Mechanism Design: Finite Dimensional Approximations and Efficient Computation, with Giuseppe Lopomo and Shouqiang Wang (Operations Research, Volume 58 Issue 4-Part-2, 2010, pp. 1079-1089).
36. An Efficient Re-scaled Perceptron Algorithm for Conic Systems, with Robert M. Freund and Santosh Vempala (Mathematics of Operations Research, Vol. 34, No. 3, August 2009, pp. 621–641).

37. On the Computational Complexity of MCMC-based Estimators in Large Samples, with Victor Chernozhukov (Annals of Statistics 2009, Vol. 37, No. 4, pp. 2011-2055).
38. On the Behrens-Fisher problem: a globally convergent algorithm and a finite-sample study of the Wald, LR, and LM tests, with Gustavo Didier (Annals of Statistics, 2008, Vol. 36, No. 5, pp. 2377-2408).
39. On the Second-Order Feasibility Cone: Primal-Dual Representation and Efficient Projection, with Robert M. Freund (SIAM Journal on Optimization, Volume 19, Issue 3, pp. 1073–1092, 2008).
40. A Geometric View of Renegar’s Condition Number, with Robert M. Freund (Mathematical Programming, Volume 119, Issue 1 (2009), pp. 95–107).
41. Norm-Induced Densities and Testing the Boundedness of a Convex Set (Mathematics of Operation Research, Vol. 33, No. 1, February 2008, pp. 235-256)
42. Projective re-normalization for improving the behavior of a homogeneous conic linear system, with Robert M. Freund (Mathematical Programming 118, pp. 279-299, 2009).
43. Optimal Product Line Design: Efficient Methods and Comparisons, with Robert M. Freund, Matthew Selove, and Duncan Simester (Management Science Vol. 54, No. 9, September 2008, pp. 1544–1552).
44. Dynamic Bundle Methods, with Claudia Sagastizábal (Mathematical Programming, Volume 120, Number 2 / September, 2009, pp. 289–311; former title: “Dynamic Bundle Methods: Application to Combinatorial Optimization”).
45. On the Symmetry Function of a Convex Set, with Robert M. Freund (Mathematical Programming, Volume 111, Numbers 1-2 / January, 2008, pp. 57–93).
46. Lagrangian Based Heuristic for the Linear Ordering Problem, with Abílio Lucena. In Metaheuristics Computer Decision Making, edited by M. G. C. Resende and J. P. de Sousa with the assistance of A. Viana, Kluwer Academic Publishers, 2004, pp. 37–64.
47. Bundle Relaxation and Primal Recovery of Unit Commitment Problems. The Brazilian Case, with André Diniz, Maria E. P. Maceira and Claudia Sagastizábal. Annals of Operation Research, 120, pp. 21-44, 2003.

Others

48. Introduction to Bundle Methods. MIT IAP, 2005.
49. Studies Integrating Geometry, Probability, and Optimization under Convexity. PhD Thesis Massachusetts Institute of Technology, 2006.
50. Computing Decision under Potentially Adaptive Uncertainty Aversion: Application to Power Systems, with Aloisio Araujo. PSR Technical Report, 2010.

Teaching Experience

- Fall 2017 Fuqua School of Business, Durham, NC
Instructor for DEC610: Probability and Statistics (MBA Daytime, 3 sections).
- Fall 2016 Fuqua School of Business, Durham, NC
Instructor for DEC618: Data Analytics for Business (MBA Daytime, 2 sections).
- Fall 2016 Fuqua School of Business, Durham, NC
Instructor for DEC610: Probability and Statistics (MBA Daytime, 3 sections).
- Fall 2015 Fuqua School of Business, Durham, NC
Instructor for DEC618: Data Mining (MBA Daytime, 2 sections).
- Fall 2015 Fuqua School of Business, Durham, NC
Instructor for DEC610: Probability and Statistics (MBA Daytime, 3 sections).
- November 2014 IMPA, Rio de Janeiro, Brazil
Instructor: High Dimensional Estimation: from foundations to Econometric models (mini-course).
- Fall 2014 Fuqua School of Business, Durham, NC
Instructor for DEC618: Data Mining (MBA Daytime, 2 sections).
- Fall 2014 Fuqua School of Business, Durham, NC
Instructor for DEC610: Probability and Statistics (MBA Daytime, 3 sections).
- Fall 2013 Fuqua School of Business, Durham, NC
Instructor for DEC610W: Probability and Statistics (MBA Weekend, 2 sections).
- Fall 2013 Fuqua School of Business, Durham, NC
Instructor for DEC610: Probability and Statistics (MBA Daytime, 3 sections).
- Fall 2012 Fuqua School of Business, Durham, NC
Instructor for DEC610: Probability and Statistics (MBA Daytime, 3 sections).
- Fall 2011 Fuqua School of Business, Durham, NC
Instructor for DEC311W: Probability and Statistics (MBA Weekend, 2 sections).
- Fall 2011 Fuqua School of Business, Durham, NC
Instructor for DEC311: Probability and Statistics (MBA Daytime, 3 sections).
- Fall 2010 Fuqua School of Business, Durham, NC
Instructor for DEC311: Probability and Statistics (MBA Daytime, 3 sections).
- Fall 2009 Fuqua School of Business, Durham, NC
Instructor for DEC311: Probability and Statistics (MBA Daytime, 3 sections).
- January 2009 IMPA, Rio de Janeiro, Brazil
Instructor: Concentration Inequalities and High-dimension Estimation (mini-course).
- Fall 2008 Fuqua School of Business, Durham, NC
Instructor for DEC311: Probability and Statistics (MBA Daytime, 3 sections).

Fall 2007	Fuqua School of Business, Durham, NC Instructor for DEC311: Probability and Statistics (MBA Daytime, 3 sections).
Winter 2005	Massachusetts Institute of Technology, Cambridge, MA Instructor for IAP course Bundle Methods for Non-Smooth Optimization.
Spring 2004	Massachusetts Institute of Technology, Cambridge, MA Teaching Assistant for 15.094 Systems Optimization: Models and Computation.
Fall 2003	Massachusetts Institute of Technology, Cambridge, MA Teaching Assistant for 15.099 Readings in Optimization: Probabilistic Methods for Continuous Deterministic Optimization Problems.

Grants Funded

Applied Mechanism Design, with G. Lopomo, L. Marx, and P. Sun. (NSF)

Presentations

1. Subvector Inference in Partially Identified Models with Many Moment Inequalities, MMS2017 (in honor of O. Lepski and A. B. Tsybakov), CIRM, December 2017.
2. Estimation of Network Models with Latent Agents, Wilks Statistics Seminar, Princeton University, December 2017.
3. Budget Constrained Procurement Yale University, Department of Economics, Micro Theory Reading Seminar, December 2017.
4. Subvector Inference in Partially Identified Models with Many Moment Inequalities, Yale University, Department of Economics, Econometrics Seminar, December 2017.
5. Inference with High-Dimensional Parameters of Interest and Many Controls, UCI, Department of Economics, November, 2017.
6. Inference with High-Dimensional Controls and Parameters of Interest, UNC, November 2017.
7. Inference with High-Dimensional Controls and Parameters of Interest, NYU Stern, Statistics Group, November 2017.
8. Inference with High-Dimensional Controls and Parameters of Interest, UNC Greensboro, Helen Barton Lecture Series in Computational Mathematics, October 2017.
9. Pivotal Estimation and Confidence Bands for High Dimensional Linear Models with Error-in-variables, October 2017, INFORMS.
10. Understanding and Pricing on a Network with Latent Agents, October 2017, INFORMS.
11. Uniformly Valid Post-Regularization Confidence Regions for Many Functional Parameters in Z-Estimation Framework, June, 2017 Asian Econometrics Meeting.
12. Causal Inference with High-Dimensional Controls and Parameters of Interest, 2017 Atlantic Coast Causal Inference Conference, NISS Workshop, Causal Inference and Machine Learning/High Dimensional Data.
13. Pivotal Estimation and Confidence Regions for High-dimensional Linear Models with Error-in-variables, March 2017, Booth School of Business, University of Chicago.
14. Uniformly Valid Post-Regularization Confidence Regions for Many Functional Parameters in Z-Estimation Framework, February 2017, UC Davis, Statistics and Econometrics Colloquium.
15. Uniformly Valid Post-Regularization Confidence Regions for Many Functional Parameters in Z-Estimation Framework, February 2017, CREST.

16. Uniformly Valid Post-Regularization Confidence Regions for Many Functional Parameters in Z-Estimation Framework, December 2016, USC Marshall Schools of Business, Statistics Seminar.
17. Uniformly Valid Post-Regularization Confidence Regions for Many Functional Parameters in Z-Estimation Framework, November 2016, Wharton School, Statistics Colloquium.
18. Budget-constrained Procurement, INFORMS 2016, Nashville.
19. Causal Inference with High-Dimensional Controls and Parameters of Interest, Digital Economics Conference, Microsoft New York, September 2016.
20. Measuring Context Effects in Z-estimation Framework, World Congress of Probability and Statistics, Toronto, July 2016.
21. Budget-constrained Procurement, 16th SAET Conference on Current Trends in Economics, July 2016.
22. Uniformly Valid Post-Regularization Confidence Regions for Many Functional Parameters in Z-Estimation Framework, PUC-rio, Department of Economics, July 2016.
23. Uniformly Valid Post-Regularization Confidence Regions for Many Functional Parameters in Z-Estimation Framework, London Business School, May 2016.
24. Uniformly Valid Post-Regularization Confidence Regions for Many Functional Parameters in Z-Estimation Framework, Econometrics Workshop at University of Warwick, May 2016.
25. Uniformly Valid Post-Regularization Confidence Regions for Many Functional Parameters in Z-Estimation Framework, Columbia University, DRO-IEOR Seminar, April 2016.
26. Valid Post-Selection Confidence Regions for Moment Condition Models with Functional Response Data, Triangle Econometric Meeting, December 2015.
27. Structures of Optimal Contracts in Dynamic Mechanism Design with One Agent, INFORMS, November 2015.
28. Approximate Group Context Tree, Princeton University, Operations Research and Financial Engineering Department, April 2015.
29. Valid Post-Selection Confidence Regions for Moment Condition Models with Functional Response Data, University of Michigan, Ross School of Management, April 2015.
30. Valid Post-Selection Confidence Regions for Moment Condition Models with Functional Response Data, North Carolina state University, Department of Statistics, February 2015.
31. Program Evaluation in High-Dimensions, Wharton Department of Statistics Colloquium, December 2014.
32. Uniform Post Selection Inference for Z-estimation problems, MIT Stochastic and Statistics Seminar, May 2014.
33. Uniform Inference for Quantile Regression, Logistic Regression, and other Z-estimators, University of Pennsylvania, Department of Economics, March 2014.
34. Uniform Inference for Quantile Regression, Logistic Regression, and other Z-estimators, Penn State University, Department of Economics, March 2014.
35. Uniform Inference for Quantile Regression, Logistic Regression, and other Z-estimators, Boston University, Department of Economics, March 2014.
36. Honest Confidence Regions for a Regression Parameter in Logistic Regression with a Large Number of Controls, Mathematical Statistics with Applications in Mind, CIRM, December, 2013.

37. Uniform Inference After Model Selection, Columbia University, Department of Biostatistics, November 2013.
38. Uniform Inference After Model Selection, MIT ORC, October 2013.
39. Uniform Inference After Model Selection, IMPA, June 2013.
40. Robust Post Model Selection Inference for High-Dimensional Sparse Quantile Regression Models, CEME, Cornell, May 2013.
41. Uniform Inference After Model Selection, Stanford University, GSB, May 2013.
42. Uniform Inference After Model Selection, Georgetown University, Department of Economics, April 2013.
43. Inference on Treatment Effects After Selection Amongst High-Dimensional Controls, Midwest Economics Association Meeting, March 2013.
44. Inference on Treatment Effects After Selection Amongst High-Dimensional Controls, University of Rochester, December 2012.
45. Robust Post Selection Inference for High-Dimensional Sparse Quantile Regression, Frontiers in Quantile Regression, Mathematisches Forschungsinstitut Oberwolfach, November 2012.
46. Robust Post Selection Inference for High-Dimensional Sparse Quantile Regression, invited (joint) seminar Statistics and Econometrics, University of Michigan, November 2012.
47. High dimensional Sparse Econometric Models, An Introduction, ICE 2011, Booth School of Business, University of Chicago.
48. Robust Inference After Model Selection, Summer Seminar Series, Fuqua, July 2012.
49. Approximate Group Context Tree: applications to dynamic programming and dynamic choice models, CIREQ, May 2012.
50. Approximate Group Context Tree: applications to dynamic programming and dynamic choice models, invited seminar at Duke University, Department of Statistics, February 2012.
51. Approximate Group Context Tree: applications to dynamic programming and dynamic choice models, invited seminar at Kellogg School of Business, January 2012.
52. Approximate Group Context Tree: applications to dynamic programming and dynamic choice models, invited seminar at USC, Business School, December 2011.
53. On model selection and high-dimensional sparse models in Econometrics, invited seminar at North Carolina State University, Department of Economics, November 2011.
54. Approximate Group Context Tree: applications to dynamic programming and dynamic choice models, invited talk INFORMS 2011.
55. Pivotal Estimation of Nonparametric Functions via Conic Programming, invited talk INFORMS 2011.
56. High dimensional Sparse Econometric Models, An Introduction, ICE 2011, Booth School of Business, University of Chicago.
57. Model Selection and High-Dimensional Sparse Econometric Models, Invited Talk at Northwestern University, Department of Economics, May 2011.
58. Sparse Models and Methods for Optimal Instruments with an Application to Eminent Domain, 2010 Triangle Econometrics Conference, NISS, December 2010.

59. On Multivariate Quantiles under Partial Ordering, MIT/Harvard Econometric Workshop, November, 2010.
60. On Multivariate Quantiles under Partial Ordering, Decision Science Seminar at Fuqua School of Business, November, 2010.
61. High-Dimensional Sparse Econometric Models, Summer Seminar Series at Fuqua School of Business, June, 2010.
62. Penalized Quantile Regression in Sparse High-dimensional Models, invited Talk at IMPA, June, 2010.
63. Multi-dimensional Mechanism Design: Finite Dimensional Approximations and Efficient Computation, invited talk at Booth Chicago School of Business, 2010.
64. Multi-dimensional Mechanism Design: Finite Dimensional Approximations and Efficient Computation, STOR seminar at UNC, 2009.
65. Multi-dimensional Mechanism Design: Finite Dimensional Approximations and Efficient Computation, ISMP at Chicago, 2009.
66. Penalized Quantile Regression in Sparse High-dimensional Models, invited Talk at London Business School, June, 2009.
67. Penalized Quantile Regression in Sparse High-dimensional Models, CEMMAP at UCL, June, 2009.
68. Penalized Quantile Regression in Sparse High-dimensional Models, invited Talk at PUC-rio, January, 2009.
69. Penalized Quantile Regression in Sparse High-dimensional Models, 2008 Triangle Econometrics Conference, NISS, December, 2008.
70. Penalized Quantile Regression in Sparse High-dimensional Models, Latin American Meeting of the Econometric Society, Rio de Janeiro, November, 2008.
71. On the Behrens-Fisher problem: a globally convergent algorithm and a finite-sample study of the Wald, LR, and LM tests, SIAM Meeting on Optimization, Boston, May, 2008.
72. Conditional Quantile Processes under Increasing Dimension, NAWM Econometric Society, New Orleans, January, 2008.
73. An Integer Stochastic Programming Problem with Linear Fractional Objective Function, 2007 INFORMS, Seattle, November, 2007.
74. Conditional Quantile Processes under Increasing Dimension, 2007 INFORMS, Seattle, November, 2007.
75. Norm-induced densities and testing the boundedness of a convex set. International Conference on Continuous Optimization (ICCOPT), Hamilton, Canada, August, 2007.
76. Efficiency of a Re-scaled Perceptron Algorithm for Conic Systems, International Conference on Continuous Optimization (ICCOPT), Hamilton, Canada, August, 2007.
77. On the Computational Complexity of MCMC-Based Estimators under Large Samples, 2007 North American Summer Meeting of the Econometric Society, Durham NC, June 2007.
78. Efficiency of a Re-scaled Perceptron Algorithm for Conic Systems, COLT, San Diego, June, 2007.
79. Projective Pre-conditioners for Improving the Practical Performance of IPMs for Conic Programming, INFORMS 2006, Pittsburg PA, November 2006.

80. On the Computational Complexity of MCMC-Based Estimators under Large Samples, George Nicholson Student Paper Competition, INFORMS 2006, Pittsburg PA, November 2006.
81. Efficiency of a Re-scaled Perceptron Algorithm for Conic Systems, IBM T. J. Watson Research Center, AP/IP Seminar Series, September, 2006.
82. Testing the Boundedness of a Convex Set, 19th International Symposium on Mathematical Programming, Rio de Janeiro, Brazil, August 2006.
83. Two Applications of High-Dimensional Random Sampling for Convex Problems. McMaster University, Canada, February 2006.
84. Computational Complexity of MCMC-Based Estimators under the Central Limit Theorem Framework, New York University, Stern School of Business, Operations Management, NY, February 2006.
85. Two Applications of High-Dimensional Random Sampling. Duke University, Fuqua School of Business, Decision Science, NC, February 2006.
86. Optimizing Product Line Design: Efficient Methods and Comparisons, University of British Columbia, Sauder School of Business, Operations and Logistics, Canada, February 2006.
87. Computational Complexity of MCMC-Based Estimators under the Central Limit Theorem Framework, Columbia University, Graduate School of Business, Decision, Risk and Operations, NY, February 2006.
88. Optimizing Product Line Design: Efficient Methods and Comparisons, Columbia University, Graduate School of Business Decision, Risk and Operations, NY, February 2006.
89. Projective Pre-conditioners for Solving Homogeneous Linear Conic Systems, University of Waterloo, Department of Combinatorics and Optimization, Canada, January 2006.
90. Two (or Three) Applications of High-Dimensional Random Sampling for Convex Problems. IBM T. J. Watson Research Center, NY, December 2005.
91. Projective Pre-conditioners for Improving the Behavior of Homogeneous Conic Systems, INFORMS 2005, San Francisco, November 2005.
92. Projective Pre-conditioners for Improving the Behavior of Homogeneous Conic Systems, SIAM Conference on Optimization, Stockholm, Sweden, May 2005.
93. Projective Pre-conditioners for Improving the Behavior of Homogeneous Conic Systems, IMPA, Rio de Janeiro, Brazil, February 2005.
94. Projective Pre-conditioners for Improving the Behavior of Homogeneous Conic Systems, IBM T. J. Watson Research Center, NY, January 2005.
95. Symmetry Points of Convex Sets: Basic Properties and Complexity, V Brazilian Workshop on Continuous Optimization 2004, Brazil.
96. Uncertainty Aversion Applied to the Power Systems, IV Brazilian Workshop on Continuous Optimization 2002, Brazil.
97. Dynamic bundle methods for combinatorial optimization, IV Brazilian Workshop on Continuous Optimization 2002, Brazil.
98. Dynamic Bundle Methods for Combinatorial Optimization, SIAM Conference on Optimization 2002, Toronto, Canada.
99. Relax and Cut, III Brazilian Workshop on Continuous Optimization, 2001.
100. Relax and Cut Algorithm for the Traveling Salesman Problem, 17th International Symposium on Mathematical Programming, Atlanta, USA, 2000.

Extracurricular Activities

Field hockey (member of the Brazilian national team since 1998-2009, and member of the Boston team during 2002-2007).

Computer Skills and Interests

FORTRAN, C and C++ programming languages; MATLAB, AMPL, and R.

Citizenship Citizen of Brazil. Permanent Resident of US (green card).