

# Miguel Sousa Lobo

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## Education

- 1995-2000 PhD, Stanford University, Information Systems Laboratory, Electrical Engineering, with minor in Engineering-Economic Systems and Operations Research (“Convex and Robust Optimization with Applications in Finance”).
- 1996-1998 MA, Stanford University, Political Science.
- 1994-1995 MS, Stanford University, Electrical Engineering.
- 1988-1994 *Licenciatura* in Electrical and Computer Engineering, Instituto Superior Técnico, Universidade Técnica de Lisboa, Portugal.

## Professional Experience

- 2001- Assistant Professor of Decision Sciences, The Fuqua School of Business, Duke University.
- 2007 Visiting Professor (fall), Decision Sciences, INSEAD.
- 2005-2006 Visiting Professor, Decision Risk and Operations, Columbia Business School, Columbia University.
- 2003 Visiting Researcher (summer), Operations Research and Econometrics, Tilburg University, The Netherlands.
- 2000-2001 Consultant, statistical arbitrage, startup hedge fund.
- 2000 Scientist, Panop (acquired by Broadbase Software).
- 1999 Teaching Fellow, Stanford University.
- 1995-1999 Research Assistant, with Prof. Stephen Boyd, Stanford University, Electrical Engineering Dept.

1993-1994 Member, National Education Council, elected representative of Portuguese university and polytechnic student associations.

1992-1993 President, Student Association of Instituto Superior Técnico.

1991-1992 Editor, *Diferencial*, student newspaper of the Instituto Superior Técnico.

Other consulting or advisory work: Intel, Cariden, Vazu, Tamarind, Jaago, Cooliris.

## Teaching

2001-2007 Duke University: Decision Models (MBA, Cross Continent MBA, Duke-Goethe MBA, Global Executive MBA), GATE Southern Africa (MBA), GATE Australia and New Zealand including team-building and leadership module (MBA), Dynamic Programming and Optimal Control (PhD).

2007 INSEAD: Uncertainty, Data and Judgment (MBA).

2005-2006 Columbia University: Decision Models (MBA).

1999 Stanford University: Linear Dynamical Systems (MS).

## Honors and Awards

2000 Outstanding Contribution Award, Broadbase Software.

1999 Best Student Paper Award, American Automatic Control Council (ACC, June 1999), for *Policies for Simultaneous Estimation and Optimization*.

1995 Qualifying exam for the Electrical Engineering PhD program, Stanford University, ranked first (also first in six out of eight sub-scores).

1990 First prize, Educational Software Awards, Portuguese Ministry of Education, for *Dinamix* (dynamic systems modeling software).

1986, 1987 Twice winner of the Portuguese Mathematics Olympiads.

## Active Drafts

M. S. Lobo and G. Lopomo. Dynamic Mechanism Design with Buyers with Privately-Known Deadlines.

M. S. Lobo. The Value of Dynamic Pricing.

T. Casciaro and M. S. Lobo. Interpersonal Affect and Task Interaction: An Analysis of Causality.

M. S. Lobo and T. Casciaro. The Quadratic Assignment Procedure (QAP), Bayesian Estimates, and Structure in Social Networks.

## Under Review

M. S. Lobo. Robust and Comprehensive-Robust Portfolio Optimization.

M. S. Lobo. Optimal Timing of Price-Quote Revisions.

F. de Véricourt and M. S. Lobo. Resource and Revenue Management in Nonprofit Operations. (Revise-and-resubmit with *Operations Research*.)

T. Casciaro and M. S. Lobo. When Task Competence is Irrelevant: The Role of Positive and Negative Interpersonal Affect in Instrumental Ties. (Revise-and-resubmit with *Administrative Science Quarterly*.)

## Publications

B. Carlin, M. S. Lobo and S. Viswanathan (2007). Episodic Liquidity Crises: Cooperative and Predatory Trading. *Journal of Finance*, vol. 62, 5, 2235-2274.

M. S. Lobo, M. Fazel and S. Boyd (2007). Portfolio Optimization with Linear and Fixed Transaction Costs. *Annals of Operations Research*, vol. 152, 1, 341-365.

T. Casciaro and M. S. Lobo (2005). Competent Jerks and Lovable Fools: whom do people choose to work with and what does it mean for your organization? *Harvard Business Review*, June 2005.

M. S. Lobo and S. Boyd (1999). Policies for Simultaneous Estimation and Optimization. *Proceedings of the American Control Conference* (peer reviewed).

M. S. Lobo, L. Vandenberghe, S. Boyd and H. Le Bret (1998). Applications of Second-order Cone Programming. *Linear Algebra and its Applications*, vol. 284, 1-3, 193-228.

L. Lobo and M. S. Lobo (1991). Robust and Efficient Non-linear Regression of Kinetic Systems by a Direct Search Method. *Computers and Chemical Engineering*, vol. 15, 2, 141-144.

## Other Work, Reports, Notes

M. S. Lobo (2005). Book chapter on research, science and technology policies in Portugal (in Portuguese). G. Cardoso ed., published by *Campo das Letras*.

M. S. Lobo (2002). Book chapter on the role of decision analysis in the teaching and practice of engineering in Portugal (in Portuguese). In *Engenho e Obra*, M. Heitor, J. M. B. Brito, M. F. Rollo eds., published by *Dom Quixote*.

M. S. Lobo, B. Carlin and S. Viswanathan. Optimal Liquidation and Window-Dressing. Draft.

M. S. Lobo and S. Boyd. Pricing and Learning with Uncertain Demand. Working paper.

M. S. Lobo and S. Boyd. Perturbation of Conic Programs and Applications. Draft.

M. S. Lobo and A. Gous. Using Network Flow Optimization to Sample with Unequal Probabilities. Draft.

M. S. Lobo and R. Nau. Aggregation of Expert Estimates via Linear Programming. Draft.

## Talks

- 2007 INFORMS Conference, Seattle, “Optimal Timing of Price-Quote Revisions.”
- 2007 INSEAD, Decision Sciences Seminar, Fontainebleau, France, “ Optimal Timing of Price-Quote Revisions.”
- 2007 INFORMS Revenue Management Conference, Barcelona, Spain, “On the Value of Dynamic Pricing.”
- 2007 Duke University Computer Science Algorithms Seminar, Durham, “An Overview of Dynamic Pricing, Computational Challenges.”
- 2007 International Network of Social Network Analysis (INSNA) Conference, Corfu, Greece, “Interpersonal affect and task interaction: An analysis of causality.”
- 2007 INSEAD, Decision Sciences Seminar, Fontainebleau, France, “On the Value of Dynamic Pricing.”
- 2006 INFORMS Conference, Pittsburgh, “On the Value of Dynamic Pricing.”
- 2006 INFORMS Conference, Pittsburgh, “Resource and Revenue Management in Nonprofit Operations.”
- 2006 Academy of Management Conference, Atlanta. “When Task Competence is Irrelevant: The Role of Positive and Negative Interpersonal Affect in Instrumental Ties.”
- 2006 Conference on Modern Financial Institutions, Financial Markets, and Systemic Risk, Federal Reserve Bank of Atlanta. “Episodic Liquidity Crises: Cooperative and Predatory Trading.”
- 2006 Instituto Nacional de Administracao, Lisbon, Portugal. “New Organizational Forms: The Role of Interpersonal Affect in Instrumental Ties.”
- 2005 Operations Seminar, Graduate School of Business, University of Chicago. “Resource and Revenue Management in Nonprofit Operations.”
- 2005 Liquidity Conference, Federal Reserve Bank of New York. “Episodic Liquidity Crises: Cooperative and Predatory Trading.”
- 2005 INFORMS Conference, San Francisco, “Resource and Revenue Management in Nonprofit Operations.”
- 2005 Decisions, Operations & Technology Management Colloquium, Andersen School of Management, UCLA, “Resource and Revenue Management in Nonprofit Operations.”

- 2004 Institute for Operations Research and Management Science (INFORMS) Conference, Denver. “Joint Operational and Pricing Decisions in Nonprofit Operations.”
- 2004 International Network of Social Network Analysis (INSNA) Conference, Portoroz, Slovenia. “An Affective Theory of Instrumental Ties.”
- 2004 Kennedy School of Government, Harvard University. “An Affective Theory of Instrumental Ties.”
- 2004 Portuguese-American Postgraduate Society Forum, New Jersey.
- 2003 Decision Sciences, London Business School, UK. “Aggregation of Expert Estimates.”
- 2003 Operations Research and Econometrics, Tilburg University, The Netherlands. “Aggregation of Expert Estimates.”
- 2003 INFORMS Revenue Management and Pricing Conference, Columbia University. “Pricing and Learning with Uncertain Demand.”
- 2003 Euro-INFORMS Conference, Istanbul, Turkey. “Sequential Pricing with Unknown Demand: Informative Prices and Profit Maximization.”
- 2002 Portuguese-American Postgraduate Society Forum, UNC.
- 2001 INFORMS Conference, Miami. “Intra-firm Networks and Performance Appraisal.”
- 2001 Graduate School of Business, Stanford University. “Pricing and Learning with Demand Uncertainty.”
- 2000 INFORMS Conference, San Antonio. “Perturbation of Conic Programs and Applications.”
- 2000 Mathematical Finance Workshop, Stanford University. “The Worst-case Risk of a Portfolio.”
- 2000 Fuqua School of Business, Duke University. “Pricing and Learning with Demand Uncertainty.”
- 2000 Graduate School of Industrial Administration, Carnegie-Mellon University. “Pricing and Learning with Demand Uncertainty.”
- 2000 Engineering-Economic Systems and Operations Research Dept., Stanford University. “Robust Optimization with Applications in Finance.”
- 2000 KMV (now part of Moody’s), internal seminar, San Francisco. “Portfolio Optimization with Incomplete Information.”

- 1999 INFORMS Conference, Cincinnati. “Sequential Pricing with Unknown Demand: Informative Prices and Profit Maximization.”
- 1999 Society for Industrial and Applied Mathematics (SIAM) Optimization Conference, Atlanta. “Convex Programming for Simultaneous Estimation and Optimization.”
- 1999 American Control Conference (ACC), San Diego. “Policies for Simultaneous Estimation and Optimization.”
- 1998 FIP conference on research and education, Azores, Portugal. “Market Mechanisms in University Education: Institutional Framework, Opportunities and Limitations.”
- 1997 SIAM Optimization Conference, Stanford University. “Second-order Cone Programming.”

## Academic Service and Other

Reviewer for: *Operations Research*, *SIAM Journal on Optimization*, *Administrative Science Quarterly*, *Annals of Operations Research*, *Decision Analysis*, *International Journal of Applied Mathematics and Computer Science*, *Optimization and Engineering*, and *Naval Research Logistics*.

Member of: Conference Committee, Conference of the MSOM Service Management SIG of INFORMS (2008). International Program Committee, Mediterranean Control and Automation Conference (2002). NSF CPATH Faculty Learning Community on Science of Networks (2007-2009).

At the request of the Dean’s Office, provided support in designing the Fuqua School of Business staff performance appraisal survey, including survey design, statistical analysis, training, and reports.

Fluent in English, Portuguese and French. Working knowledge of Spanish.

Dual Portugal and UK national. US permanent resident (green card).