University of Miami School of Business Last Revised 1/18/2017

# Ronny Aboudi

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**Current Academic Rank:** Associate Professor **Primary Department:** Management Science

**Secondary Appointment:** None **Citizenship:** USA

## HIGER EDUCATION

#### **Institutional:**

Cornell University, Ph.D., Operations Research, January 1986

Cornell University, M.S., Operations Research, January 1983

Florida Atlantic University, B.S., Mathematics (with honors), June 1980

Certification, licensure: None

Non-Institutional: None

## **EXPERIENCE**

## **Academic:**

University of Miami, Department of Management Science, Associate Professor 1994-present.

University of Miami, Department of Management Science, Assistant Professor 1988-1994.

Yale University, School of Organization and Management, Visiting Professor, Academic Year 1987-1988.

Universidade Nova de Lisboa, Visiting Professor, Sabbatical Years 1996-1997, 2003-2004.

Catholic University, Portugal, taught Operations Management Course (MsC program) May-June 2008.

#### **Non-Academic:**

Chr. Michelsen Institute, Center for Petroleum Economics, Bergen, Norway, Scientist, October 1985 - July 1987

Military: None.

#### **PUBLICATIONS**

**Books and monographs published:** None.

#### **Juried or Refereed Journal Articles:**

- R. Aboudi, D. Thon and M. Zheng, "Designing a Basic Income System with a Social Welfare Function", <u>Journal of Public Economic Theory</u>, 16 (2014), pp 546-568.
- R. Aboudi and D. Thon, "Characterizations of egalitarian binary relations as transitive closures with special reference to Lorenz dominance and to single-crossing conditions", <u>Social Choice and Welfare</u>, 35 (2010), pp 575-593.
- Aboudi, D. Thon and S. Wallace, "Inequality Comparisons when the Population Differ in Size", Journal of Economic Inequality, 8 (2010) pp 47-80.
- R. Aboudi and D. Thon, "Second degree Pareto dominance", <u>Social Choice</u> and Welfare, 30 (2008), pp 475-493.
- R. Aboudi and D. Thon, "Refinement of Muirhead's Lemma and Income Inequality", Mathematical Social Sciences 51 (2006), pp 201-216.
- J. Pachon, E. Iakovou, C. Ip and R. Aboudi, "A Synthesis of Tactical Fleet Planning Models for the Car Rental Industry," <u>IIE Transactions</u> 35 (2003), pp 907-916.
- R. Aboudi and D. Thon, "Transfer Principles and Relative Inequality Aversion: A Majorization Approach," <u>Mathematical Social Sciences</u> 45 (2003), pp 299-311.
- R. Aboudi and P. Barcia, "Determining Cutting Stock Patterns When Defects are Present," <u>Annals of Operations Research</u> 82 (1998), pp 343-354.
- R. Aboudi and D. Thon, "Second Degree Stochastic Dominance Decisions and Random Initial Wealth with Applications to the Economics of Insurance," <u>The Journal of Risk and Insurance</u>, 62 (1995), pp 30-49.

- R. Aboudi and D. Thon, "Efficient Algorithms for Stochastic Dominance Tests Based on Financial Market Data," <u>Management Science</u>, 40 (1994), pp 508-515.
- R. Aboudi and K. Jörnsten, "Tabu Search for General Zero-One Integer Programs Using the Pivot and Complement Heuristic," <u>ORSA Journal on Computing</u>, 6 (1994), pp 82-93.
- R. Aboudi and D. Thon, "Expected Utility and the Siegel Paradox: A Generalization," <u>The Journal of Economics</u>, 43 (1993), pp 69-93.
- R. Aboudi and G. Nemhauser, "Some Facets for an Assignment Problem with Side Constraints," <u>Operations Research</u>, 39 (1991), pp 244-250.
- R. Aboudi, Å. Hallefjord and K. Jörnsten, "A Facet Generation and Relaxation Technique Applied to an Assignment Problem with Side Constraints," <u>European</u> Journal of Operational Research, 50 (1991), pp 335-344.
- R. Aboudi and K. Jörnsten, "Resource Constrained Assignment Problems," <u>Discrete Applied Mathematics</u>, 26 (1990), pp 175-191.
- R. Aboudi, K. Jörnsten and S. Bjornestad, "Sequencing Offshore Oil and Gas Fields," <u>Investigacion Operativa</u>, 1 (1990), pp 287-294.
- R. Aboudi, Å. Hallefjord, R. Helming and K. Jörnsten, "A Note on the Pivot and Complement Heuristic For 0-1 Programming Problems," <u>Operations</u> Research Letters 8 (1989), pp 21-23.
- R. Aboudi, Å. Hallefjord, C. Helgesen, R. Helming, K. Jörnsten, A. Pettersen T. Raum and P. Spence, "A Mathematical Programming Model for the Development of Petroleum Fields and Transportation Systems," <u>European</u> Journal of Operational Research, 43 (1989), pp 13-25.

**Referred Proceedings:** None

# **Referred Chapters in Books:**

R. Aboudi and G. Nemhauser, "An Assignment Problem with Side Constraints: Strong Cutting Planes and Separation," Chapter 22 in <u>Economic Decision-Making: Games, Econometrics and Optimization</u>, J.J. Gabszewicz, J-F Richard and L.A. Wolsey, eds., North Holland, 1990.

# Other works, publications and abstracts

# Other Works Accepted for Publication

# Manuscripts Under Review/Revision

# **Working Papers**

# Funded Research Performed (include all grants received, identifying principal investigator and the amounts and dates of the awards):

Summer 1989: University of Miami Summer Award in Business and the Social Sciences. Title: "Polyhedral Structure of a Relaxation of the Maximum Spanning Tree Problem with Budget Constraints." Amount: \$6000.00.

UMISQ (University of Miami Institute for the Study of Quality). Title: "Transformer Failure Analysis." Amount: \$7500.00. (Joint research with Dr. Chi Ip, Department of Industrial Engineering.)

Summer 1990: University of Miami Summer Award in Business and the Social Sciences. Title: "Stochastic Dominance and Initial Wealth." Amount: \$6366.00.

Summer 1991: SBA Research Grant Award. Title: "Expected Utility and the Siegel Paradox: A Generalization." Amount: \$7600.

Summer 1992: James W. McLamore Summer Award in Business and the Social Sciences. Title: "Solving Linear Complementarity Problems by Integer Programming Heuristics." Amount: 2/9 of 9-month salary.

Summer 1994: SBA Research Grant Award. Title: "Generation of Mean-Gini Efficient Portfolios Using Linear Programming Aggregation." Amount: 8.75% of 9-month salary.

# Editorial Responsibilities (include editorships, editorial boards, reviewing)

## Journal Referee:

American Journal of Mathematical and Management Sciences
Annals of Operations Research
Computers and Operations Research
Discrete Applied Mathematics
Economics Bulletin (December 2012)
European Journal of Operational Research
Informs Journal on Computing
Journal of Economics
Journal of Risk and Insurance (March 2008)
Management Science
Networks
Operations Research
Operations Research Letters

Social Choice and Welfare (June 2009)

# **Professional and Honorary Organizations (member; officer/date)**

#### **Honors and Awards**

University of Miami, School of Business Research Excellence Award (1991).

Golden Key International Honour Society (Honorary Member, Inducted in November, 2005)

# **Post-Doctoral Fellowships**

Other Professional Activities (e.g, referred papers presented; conference proceedings, seminar or conference panel member, professional affiliations and memberships;

#### Conferences:

Mathematical Programming Symposium (Boston, 1985).

European Operational Research Society Meeting (Lisbon, Portugal 1986).

Combinatorial Optimization 1987 (CO 87 Southampton, Great Britain).

NATO Advanced Research Workshop (Bergen, Norway, 1987).

Operations Research Society of America (Vancouver, 1989).

Nordic Operations Research Society, OR and Decision Support Systems (Sweden, 1989).

Operations Research Society of America (Las-Vegas, 1990).

Workshop on Algorithms and Combinatorial Optimization, Georgia Institute of Technology (Atlanta, April 1991).

Operations Research Society of America (Nashville, 1991).

14th International Symposium on Mathematical Programming (Amsterdam, 1991).

Operations Research Society of America (Orlando, May 1992).

Sixth International Symposium on Applied Stochastic Models and Data Analysis (Crete, Greece, May 1993, abstract published in the proceedings).

Workshop on Algorithmic Approaches to Large and Complex Combinatorial Optimization Problems (Giens, France, May 1994).

Informs (New Orleans, October 1995)

Optimization 98, Coimbra, Portugal (July 1998).

Informs 2001, Miami Beach.

Workshop on Mixed Integer Programming, Coral Gables, FL (June 2006).

Integer Programming at CORE, Louvain-la-Neuve, Belgium (May 2009).

Informs Optimization Society, Coral Gables, FL (February 2012).

Celebrating 50 Years of ORIE at Cornell, Ithaca, NY (April 2016)

## **TEACHING**

# **Teaching Awards Received:**

University of Miami Freshmen Teaching Award (1991).

# Teaching Specialization (Note briefly courses taught; new courses developed, innovative or experimental teaching, multi-media development, cases)

Undergraduate (BBA):

MAS 110 (Quantitative Applications in Business)

MAS 201 (Introduction to Business Statistics)

MAS 202 (Intermediate Business Statistics)

#### Honors Classes:

MAS 110 (Quantitative Applications in Business)

MAS 201 (Introduction to Business Statistics)

MAS 202 (Intermediate Business Statistics)

# *Undergraduate (BSBA)*:

MAS 311 (Applied Probability and Statistics)

MAS 441 (Deterministic Models in Operations Research)

MAS 442 (Stochastic Models in Operations Research)

# *Graduate (MBA)*:

MAS 610 (Statistical Analysis for Managerial Decision Making

MAS 612 (Advanced Quantitative Analysis)

MAS 641 (Operations Research Models in Management)

# *Graduate (MS in Management Science):*

MAS 642 (Linear Programming and Extensions)

MAS 643 (Integer Programming and Network Flows)

MAS 644 (Nonlinear and Dynamic Programming)

MAS 645 (Stochastic Processes)

# Thesis and Dissertation Advising/Post Doctoral Student supervision (chair or committee member, topic, student name, date)

Chairman of M.S. in Management Science Projects:

Mary Crowder, May 1990. "A Survey of Multi-Objective Programming".

Tracey Powers, May 1990. "An Algorithm for Stochastic Dominance Tests Incorporating Order Preserving Functions".

Elsa Civantos, May 1992. "The Real Estate Timeshare Exchange Problem".

Eduardo Batalla, December 1994. "A Three Month Unit Commitment Program for Florida Power and Light's System Control Center".

Juvencio Hernandez, December 1994. "The Uncapacitated Facility Location Problem".

Quanxin Liu, December 1995. "An LP-Based Methodology for Solving Trim-Loss Problems".

Tracey Fernandez, May 1996. "A Graph Theory Approach to Cluster Analysis".

Ashish Varsani, December 1997. "Forecasting Market Returns Using Monte Carlo Simulation and Markov Chains".

Francisco Santana, May 1998. "An Inventory Management Software System for Varta S.A.

Maguys Casuso, December 1998. "Early Prognosis of Traumatic Brain Injury using Disability Rating Scale (DRS)".

Sudamys Alfonso and Michelle Voyles, May 1999. "A Simulation-Based Fax Service Optimization"

Gina Morello, December 1999. "A Methodology for Inventory Allocation".

Committee Member:

Barry Cuffe (Ph.D. in MAS, 1993)

Ahson Rabbani (MS in EEN, 1989)

Upendra Belhe (MS in IEN, 1991)

Venkatesh Parthasarthy (MS in IEN, 1991)

Zeynep Serifsoy (MS in IEN, 1991)

Vinayak Deshpande (MS in IEN, 1993)

Cuneyt Eroglu (MS in MAS, May 1995)

Sarath Swaminathan (MS in IEN, December 1995)

Julian Pachon (Ph.D. in IEN, May 2000)

Eric Drake (M.S. in Management Science, May 2000)

Kevin Ruth (Ph.D. In Mathematics, December 1999)

Harald Schmidl (Ph.D. In Computer Science, May 2002).

# **Executive Education Teaching**

MAS 610 (Statistical Analysis for Managerial Decision Making)

MAS 641 (Operations Research Models in Management)

MAS 110 (Quantitative Applications in Business, Saturday BBA program)

# **SERVICE**

## **University Committees and Administrative Responsibilities:**

# **School Committees and Administrative Responsibilities:**

School of Business Dean's Search Committee (October 2016-present)

Faculty Senate Hearing Panel (September 2015-Present)

Undergraduate Business Education Committee (Fall 2015 – present)

School of Business Curriculum Committee (2008-2009).

School of Business Undergraduate Task Force (2007-2008).

Director of the M.S. Program in Management Science (1990-2003).

Coordinator for MAS 110 (December 1990-December 2015).

Alternate Member on the University Research Council (1995-2001).

Substitute, in the March 2012 meeting of the School Council.

Service to Professional Associations Memberships on Boards (other than editorial) Community Activities