

Kalyan T. Talluri

Home

Volta de la Perdiu 5,2
08003, Barcelona, Spain
+34 93 3107993 (h)

Office

27 Ramon Trias Fargas, UPF
08005, Barcelona, Spain
+34 93 5421750 (o)
kalyan.talluri@upf.edu

Education

Massachusetts Institute of Technology, Cambridge, MA

Ph.D. in Operations Research, 1991

Thesis Title: Issues in the Design and Analysis of Survivable Networks

Purdue University, West Lafayette, IN

MS in Industrial Engineering, 1987

Osmania University, Hyderabad, India

BE in Mechanical Engineering, 1985

Work Experience

- 1995-present **Universitat Pompeu Fabra**, Department of Economics and Business, Barcelona, Spain
ICREA Research Professor (2006-present)
Full Professor (2006)
Associate Professor with Tenure (1998)
Courses Taught: Mates-I, Mates-III (in Spanish); Operations Research; Operations Management (11 years); Mathematical Methods for Business (6 years); Inv. Operativa (in Spanish); Dynamic Pricing and Revenue Management (MBA); E-commerce and Internet Marketing (9 years; Undergrad and Master's);
- 1992-1995 **USAir, Inc.**, OR Department, Arlington, VA (now renamed **USAirways**)
Senior Operations Research Analyst
Development work on the Corporate Scheduling Project . Was in charge of the Optimization group in Revenue Management
- 1991-1992 **Northwestern University**, Kellogg Graduate School of Management, Evanston, IL
Visiting Assistant Professor
Courses Taught: M.B.A core courses on Operations Management
- 1987-1991 **MIT**, Sloan School of Management and Department of Electrical Engineering and Computer Science, Cambridge, MA
Teaching Assistant/Research Assistant
Nonlinear Programming, Mathematical Programming, Applied Statistics, Dynamic Programming and Stochastic Control, Queuing Theory, Network Design
- 1989 (Summer) **Roadnet Technologies, UPS**, Baltimore, MD
Summer Intern
Designed and implemented algorithms for vehicle routing and scheduling of UPS trucks
- 1989 (January) **Arthur D. Little, Inc.**, Boston, MA
Operations Research Analyst
Statistical analysis of logistics operations for an abrasive manufacturing company
- 1985-1987 **Purdue University**, West Lafayette, IN

Teaching Assistant

Research Interests

Network design, Operational price discrimination, revenue management; Transportation; Airline operations applications; Logistics; Internet operations

Patents

One U.S patent awarded for O&D Revenue Management controls (US Patent Number 6263315).

Research Manuscripts

Book

"The Theory and Practice of Revenue Management." (with G. van Ryzin). 752 pages. *Kluwer Academic Publishers* (June 2004).

Published or Accepted for Publication

1. "2-Change for k -Connected Networks" (with M. X. Goemans). *OR Letters*, March (1991).
2. "On the k -Cut Subgraph Polytope" (with D. K. Wagner). *Mathematical Programming*, 67, 121-132 (1994).
3. "Minimum-Cost Packing of Node-Disjoint Steiner Trees in Series-Parallel Networks" (with S. Chopra). *VLSI Design*, Vol. 4, No. 1, 53-57 (1996).
4. "Network Design with Few Edges". *Networks*, Vol. 27, 109-115 (1996).
5. "Swapping Applications in a Daily Airline Fleet Assignment". *Transportation Science*, Vol. 30, August (1996).
6. "Airline Operations Research" (with C. Barnhart). *Civil and Environmental Engineering Systems* (eds. Charles ReVille & Arthur McGarity), John Wiley & Sons (1997).
7. "The Aircraft Maintenance Routing Problem" (with R. Gopalan). *Operations Research* Vol. 46, No. 2, March-April (1998).
8. "Airline Revenue Management with Passenger Routing Control: A New Model with Solution Approaches". *International Journal of Services Technology Management* Vol 2., No. 1, Jan (2001).
9. "Mathematical Models in Airline Schedule Planning: A Survey" (with R. Gopalan). *Annals of Operations Research* (1998).
10. "The Four-Day Aircraft Maintenance Routing Problem". *Transportation Science* (1998).
11. "An Analysis of Bid-Price Controls for Network Revenue Management" (with G. van Ryzin). *Management Science*, November, (1998).
12. "A Randomized Linear Programming Algorithm for Network Revenue Management" (with G. van Ryzin). *Transportation Science*, (1999).
13. "Revenue Management". Book Chapter (with G. van Ryzin). *Handbook of Transportation* (ed. Randolph Hall). Kluwer Academic Publishers (Jan 2003).

14. "Revenue Management under a General Discrete Choice Model of Consumer Behavior." (With G. van Ryzin). *Management Science*, (Jan 2004).
15. "An Introduction to Revenue Management." (With G. van Ryzin). *Tutorials in Operations Research*, INFORMS, (2005).
16. "Revenue Management: Models and Methods." (with Karaesmen, I., G. van Ryzin and G. Vulcano). *Proceedings of of the 2008 Winter Simulation Conference*, S.J.Mason, R.R.Hill, L.Moench and O.Rose (eds.); Institute of Electrical and Electronics Engineering, Inc. (IEEE). (2008).
17. "Revenue Management." Chapter in the *Oxford Handbook of Pricing and Revenue Management*. (eds. Robert Phillips, Ozalp Ozer), To appear (2012).
18. "The Customer Valuations Game as a Basis for Teaching Revenue Management". Special Issue on Teaching Revenue Management, *INFORMS Transactions on Education*, Vol. 9, No. 3 (2009).
19. "Proving the performance of a new revenue management system", (with Fernando Castejon, Begoña Codina and Juan Magaz). Vol 9, 300-312, *Journal of Pricing and Revenue Management* (2010).
20. "Dynamic pricing competition with fixed capacities". (V. Martinez-de-Albèniz), *Management Science* (June, 2011).
21. "Network revenue management with product-specific no-shows" (with S. Kunnumkal and H. Topaloglu). *Transportation Science* (to appear, 2011).
22. "An enhanced concave program relaxation for choice network revenue management". (with J. Meissner and A. Strauss) *Production and Operations Management* (to appear, 2012).

Working Papers/Under Review

23. "Equilibria in Duopolies with Finite Strategy Spaces." (2003).
24. "On bounds for network revenue management." UPF Working paper. 3rd review, *Operations Research*, 3rd revision.
25. "A randomized concave programming method for choice network revenue management". UPF Working paper. *Operations Research* 2nd revision.
26. "A risk-ratio procedure for the joint estimation of population size and parameters of a multinomial-logit model with unobservable no-purchases". UPF Working Paper. Submitted for publication.
27. "Piecewise-linear approximation and Lagrangian relaxation for network revenue management " (S. Kunnumkal) under review *Operations Research*

Current projects

28. "Overbooking auctions". (V. Martinez-de-Albèniz)
29. "Assortment optimization". (with J. Meissner and A. Strauss)
30. "Alliance management" (with S. Kunnumkal, M. Sohoni)

31. "Aggregation and estimation" (with G. van Ryzin)

32. "Opaque channel management" (with G. van Ryzin)

Professional Service

Associate Editor (2007-) – *Manufacturing and Service Operations Management*
Associate Editor (2004-2007) – *International Journal of Pricing and Revenue Management*

Administrative and Academic Community Service

Organizer: 2005 INFORMS RM and Pricing Conference, Barcelona

Director: UPF MSc in Management Program: 2000-2003, 2005-2010.

Program Committee: 2012 INFORMS Beijing

Awards

1991 George E. Nicholson Student Paper Competition of ORSA : Second Prize.

1992 Zenon and Clotilde Zannetos Ph.D. Thesis Prize of M.I.T.

1996 AGIFORS Symposium, Atlanta: Award for Technical Excellence (joint with G. van Ryzin).

2003 AGIFORS Symposium, Paris: Award for Most Innovative Research for the paper "Revenue Management Product Design".

2004 INFORMS RM and Pricing Section award (co-winner with G. van Ryzin).

2005 INFORMS Lanchester prize (co-winner with G. van Ryzin).

2009 AGIFORS Revenue Management and Pricing Conference Best Presentation Award

Presentations and Conferences

Presentations at various IATA, INFORMS, Marcus Evans and AGIFORS conferences, Universities and Industry.

Research Grants

- Spanish Govt. Grant for project titled "Supply Chain Management" (2006-2012; PI: Daniel Serra)
- Spanish Govt. Grant for project titled "Modelos de optimización para la asignación de recursos en sistemas productivos y logísticos" (2000-2003; PI: Daniel Serra)
- Spanish Govt. Grant for project titled "Management of Public Enterprises" (1996-99; PI: Daniel Serra)
- Spanish Govt. Grant for project titled "Optimization and Logistics" (1998-1999)