

Senthil K. Veeraraghavan

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Academic Appointments

Professor of Operations, Information and Decisions, The Wharton School (2017 –)

Associate Professor of Operations, Information and Decisions, The Wharton School. University of Pennsylvania (2011 – 2017).

Visiting Associate Professor of Technology and Operations Management, INSEAD. July 2014 – May 2015.

Assistant Professor of OPIM, University of Pennsylvania, The Wharton School. July 2004 – June 2011.

Education

Ph. D., Operations Management & Manufacturing, Carnegie Mellon University. 2004.

Dissertation: Supply Choice and Capacity Decisions Under Uncertainty. (Advisor: Dr. Alan Scheller-Wolf).

William W. Cooper Award for the best dissertation in Management or Management Science.

MSIA., Operations Management, Carnegie Mellon University. 2001.

B.Tech. and M. Tech., Mechanical Engineering, Indian Institute of Technology. Bombay, India. 1999.

Research

Publications

1. Veeraraghavan, S. and A. Scheller-Wolf. 2008. Now or Later: A Simple Policy for Effective Dual Sourcing in Capacitated Systems. *Operations Research*, Vol. 56, Issue 4, pp. 850–864.
2. Veeraraghavan, S. and L. Debo. 2009. Joining Longer Queues: Information Externalities in Queue Choice. *M&SOM*, Vol 11, No. 4, pp. 543–562.
 - Lead Article.
 - Finalist, 2007 INFORMS Junior Faculty paper competition.
 - Finalist, 2012 M&SOM Best Paper Award.
3. Jerath, K., S. Netessine and S. Veeraraghavan. 2010. Revenue Management with Strategic Customers, Last Minute Selling and Opaque Selling. *Management Science*, Vol. 56, No. 3, pp. 430–448.
 - Finalist, 2013 Management Science Best Paper in Operations Management.
 - Highest citations among papers published in Operations area in *Management Science* in 2010.
4. Kim, S., M. A. Cohen, S. Netessine and S. Veeraraghavan. 2010. Contracting for Infrequent Restoration and Recovery of Mission-Critical Systems. *Management Science*, Vol. 56, No. 9, pp. 1551–1567.
5. Anand, K., M. Paç and S. Veeraraghavan. 2011. Quality - Speed Conundrum: Tradeoffs in Customer-Intensive Services. *Management Science*, Vol. 57, No. 1, pp. 40–56.
 - Winner. 2013 Management Science Best Paper in Operations Management.

- Finalist. 2009 INFORMS Junior Faculty paper competition.

6. Veeraraghavan, S. and L. Debo. 2011. Herding in Queues with Waiting Costs: Rationality and Regret. *M&SOM*, Vol. 13, No. 3, pp. 329–346.
7. Tereyağoğlu, N. and S. Veeraraghavan. 2012. Selling to Conspicuous Consumers: Pricing, Production and Sourcing Decisions. *Management Science*, Vol. 58 no. 12, pp. 2168–2189.
8. Veeraraghavan, S. and R. Vaidyanathan. 2012. Measuring Seat Value in Stadiums and Theaters. *Production and Operations Management*. Vol 22, No 1, pp. 49–68.
9. Debo, L. and S. Veeraraghavan. 2014. Equilibrium in Queues under Unknown Service Times and Service Value. *Operations Research*. Vol 62, No 1, pp. 38–57.
10. Cui, S. and S. Veeraraghavan. 2016. Blind Queues: The Effects of Consumer Beliefs on Revenues and Congestion. *Management Science*. Vol 62. No 12. pp. 3656–3672.
11. Tereyağoğlu, N., P. Fader and S. Veeraraghavan. 2016. Loss Aversion and Reference Dependence: Evidence from Performance Arts Industry. Forthcoming in *Management Science*.
12. Tereyağoğlu, N., P. Fader and S. Veeraraghavan. 2017. Pricing Theater Seats: The Value of Price Commitment and Monotone Discounting. *Production and Operations Management*. Vol. 26. pp. 1056–1075.
13. Janakiraman, G., M. Nagarajan and S. Veeraraghavan. 2017. Simple Policies for Managing Flexible Capacity. Forthcoming in *M&SOM*.

Published Chapters

14. Debo, L. and S. Veeraraghavan. 2009. Models of Herding Behavior in Operations Management. Chapter in *Consumer-Driven Demand and Operations Management Models*, pp. 81–114, (eds. S. Netessine and C. Tang). Springer Series in Operations Research and Management Science.
15. Jerath, K., S. Netessine and S. Veeraraghavan. 2009. Selling to Strategic Customers: Opaque Selling Strategies. Chapter in *Consumer-Driven Demand and Operations Management Models*, pp. 253–300, (eds. S. Netessine and C. Tang). Springer Series in Operations Research and Management Science.

Published Refereed Proceedings

16. Cui, S. and S. Veeraraghavan. 2013. Blind Queues: The Effects of Consumer Beliefs on Revenues and Congestion. Service SIG Conference, INSEAD, France. Acceptance Rates: 20-25%. (Discussant - Dr. Gad Allon). A later version of this paper was published (listed above as #10).
17. Anand, K., M. Paç and S. Veeraraghavan. 2009. Quality - Speed Conundrum: Tradeoffs in Labor Intensive Services. Service SIG Conference, MIT Boston, MA. Acceptance Rates: 20-25% (Paper Discussant - Dr. Francis de Véricourt, ESMT). A later version of this paper was published (listed above as #5).
18. Veeraraghavan, S. and L. Debo. 2008. Is it Worth the Wait? Service Choice and Externalities When Waiting is Expensive. First Service SIG Conference, College Park, MD. Acceptance Rates: 20-25% (Paper Discussant - Dr. Assaf Zeevi, Columbia University). Some results from the paper are presented in #6.

Papers Under Review/Working Papers

19. Cui, S., X. Su and S. Veeraraghavan. 2017. A Model of Rational Retrials in Queues. Under Review.
20. Pac, F. M. and S. Veeraraghavan. 2015. False Diagnosis and Overtreatment in Services. Under Revision.
21. Xu, Joseph., P. Fader and S. Veeraraghavan, 2017. Revenue Impact of Dynamic Pricing Policies in Major League Baseball Ticket Sales. Under Revision.

- Finalist, 2015 MIT Sloan Sports Conference 2015. Media: ESPN Magazine, Feb 2015 (Eight big ideas from MIT Sloan's research paper competition), Beyondtheboxscore.com, The Taylor Institute Blog.
- Coverage: Is Dynamic Pricing a Hit? Knowledge@Wharton 2016.

22. Debo, L., U. Rajan and S. Veeraraghavan. 2017. Can Low Prices and Long Queues Deliver High Profits?
23. Li, X., S. Veeraraghavan, and H. Zhang, 2017. Impatience and Learning in Queues. Working Paper.
24. L. Debo. R. Hassin. S. Veeraraghavan. 2017. Should customer waiting costs be compensated? Working Paper.

Other Manuscripts

25. Scheller-Wolf, A., S. Veeraraghavan and G. J. van Houtum. 2009. Effective Dual Sourcing with a Single Index Policy.
26. Learning Service Quality by Observing Service Outcomes, with Refael Hassin and Laurens Debo. In Preparation.

Research Honors and Advising

Honors and Awards

- Meritorious Service Award, M&SOM, 2016.
- Wharton MBA Core Teaching Award, 2016.
- Wharton Curricular Innovation and Teaching Excellence Award, 2016.
- Wharton Dean's Post-Doctoral Research Grant (with K. Hosanagar), 2016.
- Wharton Excellence in Teaching Award - MBA Program, 2015.
- Finalist, MIT Sloan Sports Analytics Conference, 2015.
- Winner, Management Science Best Paper in Operations Management Prize, 2013.
- Finalist (2 papers), Management Science Best Paper in Operations Management Prize, 2013.
- Wharton Excellence in Teaching Award, Undergraduate Division, 2013.
- Finalist, M&SOM Best Published Paper Award, 2012.
- Management Science Distinguished Service Award, 2009, 2010.
- Finalist, INFORMS Junior Faculty Paper Competition, 2009.
- M&SOM Distinguished Service Award, 2008.
- Finalist, INFORMS Junior Faculty Paper Competition, 2007.
- Tepper School of Business, CMU Doctoral Teaching Award, 2004.
- William W. Cooper Doctoral Dissertation Award, 2004.
- Carnegie Bosch Institute Fellowship, 2003–2004.
- William Larimer Mellon Fellowship, Carnegie Mellon University, 1999–2002.
- INFORMS Doctoral Colloquium Nominee, 2003.

Dissertation Committees/Advising

Dr. Chen Jin (2016-). Joint Post-doc with Kartik Hosanagar (Wharton Dean's Fund for Post Doctoral Research).

Youran Fu (2018 expected).

Jiding Zhang (2020 expected).

Kaitlin Daniels (2017 expected). Placed at *Washington University in St. Louis*.

Joseph Xu (2016). Placed at *Carnegie Mellon University*.

Shiliang Cui 2015. Co-Advisor with Morris Cohen. Currently Faculty at *Georgetown*.

Jaelynn Oh 2014. Currently Faculty at *University of Utah*.

Necati Tereyağoğlu 2012. Principal Advisor. Currently Faculty at *Georgia Tech*.

Mehmet Paç 2012. Principal Advisor. Currently at *Google*.

Ramnath Vaidyanathan 2011. Currently Faculty at *McGill University*.

Pinna Feldman 2010. Currently Faculty at the *University of California, Berkeley*.

Sang Hyun-Kim 2008. Dissertation Chair. Currently Faculty at *Yale University*.

This dissertation won the 2008 *George B. Dantzig Award* (given to the best dissertation in any area of operations research and the management sciences that is innovative and relevant to practice).

Robert Swinney 2008. Currently Faculty at *Duke University*. First Position: Stanford University.

Kinshuk Jerath 2008. Currently Faculty at *Columbia University*. First Position: Carnegie Mellon University.

Research Grant Activity

Mack Center Technology Research Grant, 2016, 2017.

Wharton Dean's Fund for Postdoctoral Research (w/ Kartik Hosanagar), 2016-18.

Fishman-Davidson Grants, 2008, 2009, 2013, 2015, 2016, 2017.

Dean's Research Fund, 2011.

Wharton Sports Business Initiative Grant, 2008.

Mack Center Technological Innovation Grant for Research on Opaque Selling, 2007.

Wharton School WeBI Grant, 2006–2007.

Carnegie Mellon GSA Conference Grant, 2002.

Research Talks

Invited Seminars

2017: University of Wisconsin at Madison, University of California at Berkeley, Cornell University, Boston University, University of Texas at Austin.

2016: Johns Hopkins University, Indiana University, London Business School.

2015: Singapore Management University, INSEAD, National University of Singapore, Stanford University, Dartmouth, University of Texas at Dallas.

2014: University of Washington, Seattle; Wharton Empirical OM Conference.

2013: Invited Discussant, MSOM Supply Chain SIG, INSEAD. Invited Discussant, MSOM Service SIG, INSEAD. Columbia University.

2012: Invited Discussant, MSOM Service SIG; Columbia University.

2011: University of Texas, Austin; University of Michigan, Ann Arbor; INSEAD, Singapore.

2010: University of California, Berkeley; University of North Carolina, Chapel-Hill; Carnegie Mellon University; University of Utah (Winter Operations Conference); University of Chicago; Penn State University.

2009: University of Southern California; Cornell University. Northwestern University; MIT (SIG Service Conference).

2008: University of Maryland, College Park; University of California, Los Angeles; Wharton Sports Business Forum, Philadelphia.

2007: Washington University (Customer Oriented Operations Conference), St. Louis; New York University; University of British Columbia, Vancouver.

2006: Indian School of Business, Hyderabad; M&SOM Conference, Georgia Tech.

2005: Queueing and Games Conference, Washington University, St. Louis; University of Michigan Business School, Ann Arbor; University of California, Irvine; University of Illinois, Urbana-Champaign; Cornell.

Other Conference Talks: Invited or Refereed

INFORMS Annual Meeting, Philadelphia, November 2015:

Overtreatment in Expert Services; Learning Quality from Service; Blind Queues; A Model of Rational Retrials in Queues.

INFORMS Annual Meeting, Minneapolis, October 2013:

Revenue Management by Semi-parametric Estimation of Ticket Sales; Strategic Diagnosis and Pricing in Expert Services.

INFORMS Annual Meeting, Phoenix AZ, November 2012:

Consumer Learning and Queues; Equilibrium in Queues under Unknown Service Rates and Service Value; Expert Queues: Information Pricing and Congestion.

INFORMS Annual Meeting, Charlotte NC, November 2011:

Impact of Purchase Delays on Revenues: A Structural Model based on Arts Organization Data; Learning Quality from Service Outcomes; Pricing and Diagnosis in Credence Services; Pricing and Production Decisions under Conspicuous Consumption; Static Pricing in the Presence of Demand Shocks and Strategic Customers.

INFORMS Annual Meeting, Austin TX, November 2010:

Quality Speed Conundrum: Tradeoffs in Customer-Intensive Services; Setting Prices for Theater Seats Based on Consumer Choice Behavior; Signaling Quality through Price and Service Rate; Signaling Service Quality in Queues

INFORMS Annual Meeting, San Diego CA, October 2009:

Pricing and Quantity Decisions under Conspicuous Consumption; Firm Service Rate Selection When Quality and Service Rates are Unknown; Quality Speed Conundrum: Trade-offs in Customer-Intensive Services; Pricing and Quality in Expert Services; Measuring Seat Value in Theaters; Signaling Service Quality in Queues; Herding in Two Queues.

INFORMS Annual Meeting, Washington DC, October 2008:

Is it Worth the Wait? Herding when waiting is expensive; Linking Customer Satisfaction with Future Willingness-to-pay; Quality vs. Speed: The Waiting/ Service Time Conundrum; Selling to Conspicuous Consumers; Joining Longer Queues: Information Externalities in Queue Choice.

INFORMS Conference, Seattle WA, October 2007:

Multi-channel Competition with Opaque Products; Customer Herding in Queuing Services; Customer Herding in Queues: Inferring Service Quality from Queue Lengths; Quantity Decisions Under Customer Learning Behavior.

INFORMS Annual Meeting, Pittsburgh PA, November 2006:

Capacity Rationing in Two-Channel Supply Chain with Herding Externalities; Inventory Policies for Capacitated Systems with Multiple Products; Integrating Revenue Management Systems with Recommendation Engines; Quantity Decisions Under Customer Learning Behavior.

INFORMS Annual Meeting, San Francisco CA, November 2005:

Rationing and Expediting in a Service Center Facing Multi-class Demand; To Join the Longest Queue or the Shortest Queue: Inferring Quality Through Congestion.

Teaching

Operations Strategy. Spring 2013 – current.

Modeling Risk and Realities, Specialized Online Course (SPOC). Taught with Sergei Savin.

Operations Analytics. Massive Open Online Course (MOOC). Taught with Sergei Savin and Noah Gans.

Introduction to Operations Management. Undergraduate elective, Spring 2006–2014. (last rating 3.73/4.00).

Departmental and School Level Service

Chair, OID Department Recruiting Committee, 2015.

Member, Real Estate Department Quinquennial Internal Review Committee, 2013-2014.

Member, Wharton Curriculum Committee, 2012-2013.

Member, Dept. Chairperson Committee (with Noah Gans and Howard Kunreuther), 2008–2009.

MBA Faculty Liaison (Cohort E), 2009–2011.

Member, Departmental Seminar Committee, 2005–2007, 2011-2013.

Member, Faculty Recruiting Committee, 2006–2007.

Member, Doctoral Program Admissions Committee, 2007–2010, 2016.

Scholarly Service

Associate Editor, *Management Science* (from Jan 2011–).

Associate Editor, *M&SOM* (from October 2015–).

Judge, *M&SOM* Student paper competitions (from 2005–).

Chair, *M&SOM* Service SIG Conference, Ann Arbor, MI, 2011.

Reviewer for *Management Science*, *Operations Research*, *M&SOM*, *Marketing Science*, *Naval Research Logistics*, *Production and Operations Management*, *IIE Transactions*.

Member, INFORMS (Institute For Operations Research and Management Science).

Member, *M&SOM* (Manufacturing and Service Operations Management) Society.

Member, *POM* (Production and Operations Management) Society.

Chair, Invited Sessions for INFORMS conferences, 2007–2016.

Miscellaneous

Citizen of India, U.S. Permanent Resident (EB-1 Category).