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Education

1996 Massachusetts Institute of Technology, Cambridge, MA Ph.D. in Operations Research
1990 National University of Singapore, Bachelor of Science (Hon) in Mathematics

Employment

2016 Jan -Present	Provost's Chair, NUS Business School, NUS
2007-2015	Professor, NUS Business School, NUS
2001-2007	Associate Professor, NUS Business School, NUS
2004-2005	Professor of Decision Sciences, SKK Graduate School of Business (South Korea)
2001-2002	Johnson and Johnson Associate Professor of Supply Chain Management, NUS
1998-2000	Assistant Professor, NUS Business School, NUS
1996-1998	Lecturer, NUS Business School, NUS

Administrative Experience

2017 Jan – Present	Executive Director, Institute of Operations Research and Analytics
2011 July- Dec 2016	Head of Department, Department of Decision Sciences
2010 Jan- 2011 May	Acting Deputy Dean, NUS Business School
2008 July- 2009 Dec	Vice-Dean (Research), NUS Business School
2008 Jan- 2009 Dec	Director (PhD Program), NUS Business School

Professional Experience

Department Editor (Optimization)
Area Editor (Operations and Supply Chains)
Associate Editor
Associate Editor
Associate Editor
Associate Editor
Associate Editor
Associate Editor

Senior Editor

Advisory Board Member

Faculty Advisory Committee

Management Science, 2018 Jan –
Operations Research, 2012 Jan – 2017 Dec
Management Science, 2004 Jan – 2017 Dec
Operations Research, 2007- 2011
IIE Transactions, 2009 – 2011
Networks, 2001–2007.
Naval Research Logistics Quarterly, 2003-2007
IEEE Transactions in Automation Science and
Engineering, 2003-2006
Journal of Flexible Services and Manufacturing,
2007-2009.

Engineering System and Design, SUTD, June 2017

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Faculty of Business, HKPU, Sep 2012 – Au 2017

Served also on Lanchester Prize Committee, INFORMS, 2015, Impact Prize Committee, INFORMS, 2014, MSOM Student Paper Prize Committee, INFORMS, 2008-2009, Program Committee Member, IFORS, 2008, and Chairman, Nicholson Prize Committee, INFORMS, 2007, Nicholson Prize Committee, INFORMS, 2006

Awards

- INFORMS Fellow 2019
- Chang Jiang Scholar 长江学者讲座教授 (2019-2021)
- Provost's Chair with effect from 7 August 14
- Faculty Outstanding Researcher Award Recognition List (NUS) - 2006
- Nominee for University Outstanding Researcher Award (NUS) - 2006
- Faculty Outstanding Researcher Award (NUS) – 2003
- Johnson and Johnson Term Chair (NUS) – 2001–2004

Recent Publication

1. [Models for Effective Deployment and Redistribution of Bicycles within Public Bicycle-Sharing Systems](#) (Previously titled "Public Bicycle-Sharing System: How Effective is the Deployment and Re-distribution Strategy?"), with Jia Shu, Mable Chou, Qizhang Liu and I-Lin Wang. **Operations Research**. Volume 61 Issue 6, November-December 2013, pp. 1346-135.
2. [On Theoretical and Empirical Aspects of Marginal Distribution Choice Models](#), with Vinit Kumar Mishra, Xiaobo Li, Karthik Natarajan and Dhanesh Padmanabhan. **Management Science**. Jun 2014, Vol. 60 Issue 6, p1511.
3. Distributionally robust mixed integer linear programs: Persistency models with applications, with X. Li, K. Natarajan, and C. P. Teo, **European Journal of Operational Research**, Vol. 233, No. 3, pp. 459–473, 2014.
4. Flow-based Accessibility Measurement: The Place Rank Approach. Guihua Wang, Zhong Yuanguang, Teo Chung Piaw, Liu Qizhang. **Transport Research Part C: Emerging Technologies**. 2015, 56:335-345 .
5. [Least Squares Quadratic Approximation to Stochastic Mixed Zero-One Linear Optimization Problem](#), with Karthik natarajan and Zhichao Zheng. **Operations Research**, Vol. 64, No. 6, pp. 1406–1421, 2016.
6. Appointment Sequencing: Moving Beyond the Smallest Variance First Rule, with Qingxia Kong, Chung Yee Lee and Zhichao Zheng. **European Journal of Operations Research**, Vol. 255, No. 3, pp. 809–821, 2016.
7. On Reduced Semidefinite Programs for Second Order Moment Bounds with Applications (with Karthik Natarajan) **Mathematical Programming**, 161 (2017): 487-518

8. Resource Pooling and Allocation Policies to Deliver Differentiated Service, with Zhong Yuanguan, Zheng Zhichao and Mabel Chou. Forthcoming, **Management Science**
9. Profit sharing agreements in decentralized supply chains: A distributionally robust approach, with Fu Qi and Sim Chee Khian. Forthcoming, **Operations Research**.
10. On the Design of Sparse but Efficient Structures in Operations, with Yan Zhenzhen and Gao Yini. Forthcoming, **Management Science**.
11. Disruption Risk Mitigation in Supply Chains - The Risk Exposure Index Revisited, with Gao Yini, Yan Zhenzhen and David Simchi-Levi. Forthcoming, **Operations Research**.
12. Resource allocation in flexible production networks: Theory and applications, with G. Lyu, W. C. Cheung, M. C. Chou, Z. Zheng, and Y. Zhong. Forthcoming, **Management Science**.
13. Reliable Flexibility Design of Supply Chain via Extended Probabilistic Expanders, with Y. Liang, H. Shen and Max Shen. Forthcoming **Production and Operations Management**
14. Mitigating the Effect of Schedule Dependent No-Show, with Kong Qingxia, Liu Nan, Li Shan and Yan Zhenzhen. Forthcoming, **Management Science**
15. Judgment Error in Lottery Play: When the Hot-Hand Meets the Gambler's Fallacy, with Qingxia Kong, GD Granic and Nicolas Lambert. **Management Science**

Papers in Theory of Optimization

16. Bertsimas, D. and C.P. Teo. The parsimonious property of cut covering problems and its applications. **Operations Research Letter**, Vol 21(3), 123-132, 1997.
17. Bertsimas, D. and C.P. Teo. [From valid inequalities to heuristics: a unified view of primal-dual approximation algorithms in covering problems](#), **Operations Research**. Vol 46, 503-513, 1998.
18. Bertsimas, D., C.P. Teo and R. Vohra. [On dependent randomized rounding algorithms](#), **Operations Research Letter** (24)3 pp. 105-114, 1999.
19. Bertsimas, D., C.P. Teo and R. Vohra. Analysis of LP relaxation for multicut problems, **Networks**, Vol 34, Issue 2, 102-114, 1999.
20. Srinivasan, A. and C.P. Teo. [A constant factor approximation algorithm for packet routing and balancing local versus global constraints](#), **SIAM Journal on Computing**, Vol 30, Number 6, 2051-2068, 2001.
21. Teo, C.P. and D. Bertsimas. [Multistage lot sizing via randomized rounding](#), **Operations Research**, July-August 2001, Vol 49(4), 599-608.
22. D. Bertsimas, N. Karthik, CP Teo. [Probabilistic Combinatorial Optimization: Moments, Semidefinite Programming and Asymptotic Bounds](#). **SIAM Journal of Optimization**, Volume 15, No. 1, pp. 185-209, 2004.
23. [Persistency in Discrete Optimization under Data Uncertainty](#), with N. Karthik and D Bertsimas. **Mathematical Programming**. 108 (2-3): 251-274 JAN 2006.

24. D. Bertsimas, N. Karthik and CP Teo. [Tight bounds on Expected Order Statistics](#). **Probability in the Engineering and Information Sciences**, 20, no. 4 (2006): 667-686
25. [Persistency Model and its applications in Choice Modeling](#), with N. Karthik, M. Song. **Management Science**. Volume 55, No. 3, pp. 453-469 (2009)
26. [Models for minimax stochastic programs with risk aversion](#), with D. Bertsimas, V. Doan, and K. Natarajan. **Mathematics of Operations Research**. Vol. 35, No. 3, pp. 580-602 (2010)
27. [From CVar to Uncertainty Set: Implications in Joint Chance Constrained Problems](#), with WQ Chen, M. Sim, J. Sun. **Operations Research**. Vol. 58, No. 2, March-April 2010, pp. 470-485.
28. [Choice Prediction with Semi-definite Optimization when utilities are correlated](#), with Vinit Kumar Mishra, Karthik Natarajan and Hua Tao. **IEEE Automatic Control** (Regular paper). Vol 57 (10), 2450 - 2463, 2012.
29. [MIXED ZERO-ONE LINEAR PROGRAMS UNDER OBJECTIVE UNCERTAINTY: A COMPLETELY POSITIVE REPRESENTATION](#), with Zheng ZhiChao and Karthik Natarajan. **Operations Research**. Vol. 59, No. 3, pp. 713-728 (2011) .
30. [Scheduling Arrivals to a Stochastic Service Delivery System using Copositive Cones](#), with Qingxia Kong, Chung-Yee Lee and Zhichao Zheng. To appear in **Operations Research**.

Papers in Supply Chain and Logistics

31. Teo, C.P. From Lean Production to Lean Logistics: A Review. **Singapore Management Review** 20, no. 1(January, 1998): 69-72.
32. Johnny Pang, Chew KL, Liu QZ, Ou JH and Teo CP. [An optimization based approach to Singapore MRT train scheduling problems](#). **Annals of Operations Research**, Volume 108, Pg 111-122, 2001
33. Frank Chen, Mark Goh, Jacob Lee, Jihong Ou, Moosa Sharafali, Chung-Piaw Teo, Puay Guan Goh & Pragash Sivanathan. ST Logistics: Distributing Consumer Goods In China, **International Transactions in Operations Research**, Vol. 8, No. 2, Pg 203-220, March 2001.
34. Mark Goh, Ou Jihong and Teo Chung Piaw. Warehouse sizing to minimize inventory and storage costs, **Naval Research Logistics Quarterly**, 299-312, Volume 48, Issue 4, 2001.
35. Teo C.P., J Ou and Mark Goh. Impact [On Inventory Cost With Consolidation of Distribution Centers](#), **IIE Transactions**, Volume 33, Issue 2, pp. 99-110, February 2001. *Extended abstract appeared in Proceeding of the Conference on Decision and Control, 1999.*
36. Chan A.L., Muriel A., Shen ZJ, Simchi-Levi D. and Teo CP. [Effectiveness of Zero Inventory Policies for a one-warehouse multi-retailer problem with piecewise linear cost structures](#). **Management Science**. 48, Number 11, pp 1446-1460, 2002.
37. Lim W.S., Ou J., and C.P. Teo. [Inventory Cost effect of consolidating several one-warehouse multi-retailer systems](#). **Operations Research** Vol. 51, No. 4, July–August 2003, pp. 668–672.

38. Teo CP and Jia Shu. [Warehouse-retailer network design problem](#). **Operations Research**, Vol 52, No. 3, May 2004, pp. 396-408.
39. [Mumbai Tiffin Express](#), with B Natarajan. **POM Chronicle**, Vol. 11, No. 3, 2004.
40. Jia Shu, CP Teo and Max Shen. [Stochastic Transportation-Inventory Network Design Problem](#). **Operations Research**, Vol 53, No. 1, Jan 2005.
41. S. Iravani and CP Teo. [Asymptotically Optimal Schedules for Single-Server Flow Shop Problems with Setup Costs and Times](#). **Operations Research Letters**, Volume 33, Issue 4, Pages 421-430, July 2005.
42. SH Hum, M Sharafali and CP Teo. [Staggering Periodic Replenishment in Multi-Vendor JIT Environments](#). **Operations Research**, Vol. 53, No. 4, July–August 2005, pp. 698–710. [Addendum](#)
43. Jay Sethuraman and CP Teo. [Effective routing and scheduling in adversarial queueing networks](#). **Algorithmica** (Special Issue in Network Optimization), Vol 43, Issue 1-2, August 2005, pp 133-146.
44. Tom Magnanti, J. Shu, M. Shen, D. Simchi-Levi and CP Teo. [Strategic Safety Stock Placement Model](#), **Operations Research Letters**. Volume 34, Issue 2 , March 2006, Pages 228-238.
45. R Moorty and CP Teo. Berth management in container terminal: The template design problem. **OR Spectrum** 28 (4) : 495-518, 2006
46. Edwin Romeijn, Jia Shu and CP Teo. [Designing two-echelon supply networks](#). **European Journal of Operational Research**, 449-462 Volume 178, Number 2, April 2007.
47. L. Snyder, M Daskin and CP Teo. [The Stochastic Location Model with Risk Pooling](#). **European Journal of Operational Research**, 1221-1238 Volume 179, Number 3, June 2007.
48. Mabel Chou, CP Teo and Huan Zheng. [Process Flexibility: Design, Evaluation and Applications](#), **Flexible Services and Manufacturing Journal**. (Invited Review), 59-94, 2008. Formerly published as International Journal of Flexible Manufacturing Systems.
49. [Approximate Solution to Logistical Planning Problems in One Warehouse Multi-Retailer System](#), with J. Shu, D. Simchi-Levi, ZJ Shen and JW Zhang. **Naval research Logistics**, Vol 56, Issue 7, 2009.
50. [On Range and Response: Dimensions of Process Flexibility](#), with M Chou and G. Chua. **European Journal of Operational Research**. 207(2), 711-724, 2010.
51. [Procurement Management with Options – random spot prices and portfolio effect](#), with Q. Fu and CY Lee. **IIE Transactions**. Vol 42, Issue 11, 2010, p 793-811
52. [Design for Process Flexibility: Efficiency of the Long Chains and Sparse Structure](#), Mabel Chou, GBA Chua, CP Teo and H Zheng. **Operations Research**, Volume 58 (1), pp 43-58, 2010.
53. [Modified Critical Fractile Approach for a Class of Partial Postponement Problems](#), With Qi Fu and Chung Yee Lee. **International Journal of Production Economics**. Volume 136, Issue 1, March 2012, Pages 185–193.

54. [Newsvendor Pricing problem in a Two-Sided Market](#), with M. Chou, CK Sim and H Zheng. **Production and Operations Management**. Vol 21, Issue 1, Pg 204-208, Jan-Feb 2012
55. [Process Flexibility Revisited – The Graph Expander and Its Applications](#), with Mabel Chou, GBA Chua and Huan Zheng. **Operations Research**. Sep/Oct 2011, Vol 59 no. 5 1090-1105

Papers in Social Choice, Game and Gaming

56. Teo, C.P. and Jay Sethuraman. [Geometry of fractional stable matching and its applications](#), **Mathematics of Operations Research**, Vol 23, Number 4, 874-891, 1998.
57. Teo, C.P. and Sethuraman, V.J. [On a cutting plane heuristic for the optimal stable roommates problem](#). **European Journal Of Operational Research**, Volume 123, Issue 1, Pages 195-205 (16 May 2000)
58. Teo, C.P., J.V. Sethuraman and W.P. Tan. [Gale-Shapley Stable Marriage Problem Revisited: Strategic Issues and Applications](#). **Management Science**, Sept 2001, Vol 47, No. 9, Pg 1252 – 1267
59. Teo C.P. and Leong S.M. Managing Risk in a Four Digit Number Game. **SIAM Review**, Vol 44, No. 4, 601-615, 2002.
60. Sethuraman, J and Teo CP. [A polynomial time algorithm for bistable roommates problem](#). **Journal of Computer and System Sciences**, November 2001, 498-508.
61. J. Sethuraman, Teo CP and R. Vohra. [Integer Programming and Arrovian Social Welfare Function](#). **Mathematics of Operations Research**, Vol 28, No. 2, May 2003, pp. 309-326.
62. Jay Sethuraman, CP Teo and R. Vohra. [Anonymous Monotonic Social Welfare Functions](#), **Journal of Economic Theory**, May 2006, Volume 128, Issue 1, Pg 232-254.
63. Jay Sethuraman, CP Teo and LW Qian. [Many-To-One Stable Matching: Fairness and Geometry](#). **Mathematics of Operations Research**, Vol 31, No. 3, August 2006, pp. 581-596.

Papers in Graph Theory

64. Teo, C.P. and K.M. Koh. **The chromaticity of complete bipartite graphs with at most one edge deleted**, **Journal of Graph Theory**, **14**, 89-99, 1990.
65. Koh, K.M. and C.P. Teo. Chromatic uniqueness of certain broken wheels, **Discrete Mathematics**, 96, 65-69, 1991.
66. Teo, C.P. and K.M. Koh. The number of shortest cycles and the chromatic uniqueness of a graph, **Journal of Graph Theory**, 16, 7-15, 1992.
67. Teo, C.P. and K.M. Koh. On chromatic uniqueness of subdivisions of graphs, **Discrete Mathematics**, 128, 327-335, 1994.
68. K.M. Koh and Teo, C.P. Chromaticity of series parallel graphs. **Discrete Mathematics**, 154, 289-295, 1996.

PhD Students Supervised

- Shu Jia (SMA PhD. 2003) Distribution Network Design Optimization.
- Professor in Southeast University (China). *Co-Supervisor: Prof Tom Magnanti (MIT)*

- Karthik Natarajan (SMA PhD 2004) Robust Optimization in Finance and Logistics
- Professor in SUTD (Singapore) *Co-supervisor: Prof Dimitris Bertsimas (MIT).*

- Huan Zheng (NUS PhD 2007) Sparse Process Flexibility Structure and Its Applications.
- Professor in Antai College, SJTU (China) *Co-supervisor: Dr. Mabel Chou (NUS)*

- Qi Fu (HKUST PhD, 2007) Portfolio Effect in Procurement Risk Management
- Associate Professor in Macau University (China). *Co-supervisor: Prof Lee Chung-Yee, IELM, HKUST.*

- Qingxia Kong (NUS PhD, 2012) PATTERN SEEKING AND SERVICE SYSTEM DESIGN DRIVEN BY FACT-BASED DECISION-MAKING
- Assistant Professor in Erasmus University

- Vinit Kumar Mishra (NUS PhD, 2012) Discrete Choice and Product Line Selection using Persistency Models
- Data Scientist in UPS Singapore

- Zheng Zhichao (NUS PhD, 2014) Persistency and Stein's Identity: Applications in Stochastic Discrete Optimization Problems
- Assistant Professor in Singapore Management University (Singapore)

- Zhong Yuanguang (SCUT PhD, 2014) 带有资金与服务水平约束的供应链管理问题研究
- Associate Professor in South China University of Technology (China) *Co-supervisor: 周永务教授*

- Zhenzhen Yan (NUS, PhD 2017) SPARSE SOLUTION IN OPERATIONS: ROUTING AND PRICING PROBLEMS
- Assistant Professor in Nanyang Technological University (Singapore)

- Yini Gao (NUS, PhD 2017) COMPLETELY POSITIVE AND CO-POSITIVE PROGRAMMING
- Assistant Professor in Singapore Management University (Singapore)

- Guodong Lyu (NUS, PhD 2019)
- Online Resource Allocation: Theory and Applications