

Publications

Published or in an Advanced Round*

*DISCLAIMER: THE FULL PAPERS PROVIDED BELOW ARE MERELY FOR EDUCATIONAL OR PERSONAL PURPOSES. PLEASE DO NOT DISTRIBUTE.

1. **Saghafian, S.**, and B.T. Tomlin “The Newsvendor under Distribution Ambiguity: Combining Data with Moment and Tail Information,” *Operations Research* (under 4th round of review), 2015. ([Download Paper](#))
2. **Saghafian, S.** and M.P. Van Oyen “Compensating for Dynamic Supply Disruptions: Backup Flexibility Design”, *Operations Research* (invited for 4th round of review), 2015. ([Download Paper](#))
 - **POMS (Production and Operations Management Society) 2013 College of Supply Chain Best Student Paper Award** (Honorable Mention)
 - **2012 Richard Wilson Prize**
3. **Saghafian, S.**, and M.H. Veatch “A μ Rule for Two-Tiered Parallel Servers,” *IEEE Transactions on Automatic Control*, 2015 (To Appear) ([Download Paper](#))
4. Traub (M.D.), S.J., Stewart (M.D.), C., Didehban, R., Bartley, A., **Saghafian, S.**, Smith (M.D.), V. , Silvers (M.D.), S., LeCheminant, R. and C.A. Lipinski (M.D.) “Emergency Department Rotational Patient Assignment,” *Annals of Emergency Medicine*, 2015 (To Appear).
5. **Saghafian, S.**, G. Austin, and S.J. Traub (M.D.) “Operations Research/Management Contributions to Emergency Department Patient Flow Optimization: Review and Research Prospects,” *IIE Transactions on Healthcare Systems Engineering*, 2015, 5(2), 101-123. ([Download Paper](#))
 - **Featured Article in Institute of Industrial Engineering (IIE) Magazine**
6. Traub (M.D.), S.J., C. Stewart (M.D.), R. Didehban, D., Nestler (M.D.), Y.H., Chang, **S. Saghafian**, and C.A. Lipinski (M.D.) “Emergency Department Rapid Medical Assessment: Overall Effect and Mechanistic Consideration,” *Journal of Emergency Medicine*, 2015, 48 (5), 620-627. ([Download Paper](#))
7. **Saghafian, S.**, Hopp, W.J., Van Oyen, M.P., Desmond (M.D.), J.S., and S.L. Kronick (M.D.) “Complexity-Augmented Triage: A Tool for Improving Patient Safety and Operational Efficiency”, *Manufacturing and Service Operations Management (M&SOM)*, 2014, 16 (3), 329-345. ([Download Paper](#))
 - **Selected as one of five papers representing the best work published in MSOM 2011-2015**

- **First Place, MSOM 2012 Best Student Paper Award**
 - **INFORMS 2011 Doing Good with Good OR Award** (finalist)
 - **Univ. of Michigan College of Engineering 2011 Outstanding Ph.D. Research Award**
 - **SSRN's Top Ten download list (Health Economics)**
8. **Saghafian S.** and X. Chao "The Impact of Operational Decisions on the Optimal Design of Salesforce Incentives", *Naval Research Logistics*, 2014, 61 (4), 320-340. ([Download Paper](#))
 9. Kim, E., **Saghafian, S.**, and M.P. Van Oyen "Joint Control of Production, Remanufacturing, and Disposal Activities in a Hybrid Manufacturing-Remanufacturing System," *European Journal of Operational Research*, 2013, 231 (2), 337-348. ([Download Paper](#))
 10. Li, X., Li, Y, and **S. Saghafian** "A Hybrid Manufacturing/Remanufacturing System with Random Remanufacturing Yield and Market-Driven Product Acquisition" *IEEE Transactions on Engineering Management*, 2013, 60 (2), 424-437 (Special issue on Sustainability). ([Download Paper](#))
 11. **Saghafian, S.**, Hopp, W.J., Van Oyen, M.P., Desmond (M.D.), J.S., and S.L. Kronick (M.D.) "Patient Streaming as a Mechanism for Improving Responsiveness in Emergency Departments", *Operations Research*, 2012, 60 (5), 1080-1097. ([Download Paper+Appendices](#))
 - **INFORMS 2010 Pierskalla Award** for the best paper in healthcare from INFORMS Healthcare Applications Society
 - **POMS 2011 College of Healthcare Best Paper Award** (second place)
 - **MSOM 2011 Healthcare Operations Management SIG Workshop** (among 6 papers accepted)
 12. **Saghafian, S.** and M.P. Van Oyen "The Value of Flexible Suppliers and Disruption Risk Information: Newsvendor Analysis with Recourse, *IIE Transactions*, 2012, 44 (10), 834-867 ([Download Paper + Appendices](#))
 - **Featured Article in IIE Magazine**
 - **POMS 2009 College of Supply Chain Best Student Paper Award** (among 4 finalists).
 - An earlier version was listed on the **SSRN's Top Ten download list** "SCM: Analytical" and "MRN Production & Operations Management".
 13. **Saghafian, S.**, Van Oyen, M.P., and B. Kolfal "The "W" Network and the Dynamic Control of Unreliable Flexible Servers," *IIE Transactions*, 2011, 43 (12), 893-907. ([Download Paper](#))
 - **2010 Murty Prize for the Best Paper on Optimization**
 14. **Saghafian, S.** and M.R. Akbari "Integrative Cell Formation and Layout Design in Cellular Manufacturing Systems", *Journal of Industrial and Systems Engineering*, 2009, 3, (2), 97-115, ([Download Paper](#)).
 15. Hejazi, S.R. and S. Saghafian "Flowshop-Scheduling Problems with Makespan Criterion: a Review", *International Journal of Production Research*, 2005, 43, (14), 2895-2929. ([Download Paper](#))
 - **Cited over 190 times (Google Scholar)**
 16. **Saghafian, S.** and S.R. Hejazi "Multi-criteria Group Decision Making Using A Modified Fuzzy TOPSIS Procedure", *IEEE Proc.*, 2005, 215-221 ([Download Paper](#))
 - **Cited over 60 times (Google Scholar)**

Submitted or In Progress

1. **Saghafian, S.** “Ambiguous Partially Observable Markov Decision Processes,” under revision, 2015 ([Download Paper](#))
2. Cheng, Y., Hopp, W.J., Iravani, S.M.R, **Saghafian, S.**, and D. Diermeier “Workload Management in Knowledge-Based Service Systems, under review, 2015.
3. Bloori, A, **Saghafian, S.** , Chakkerla, H.A. (M.D.), and C.B. Cook (M.D.) “Characterization of Remitting and Relapsing Hyperglycemia in Post-Renal-Transplant Recipients” under review, 2015.
4. Chang, Y.H., C.S. Block, A. Patel, R.K. Butler (R.N.), M.R. Cheng (M.S.P.H), **S. Saghafian, S.J.** Traub (M.D.), K. Curtis (M.D.), and C.A. Lipinski (M.D.) “Emergency Care of Patients with Cancer,” under review, 2015.
5. **Saghafian, S.**, D. Kilinc, and S.J. Traub(M.D.) “Principles of Efficient Care Delivery: What Makes a Physician Efficient? ” work in progress, 2015.

Refereed Conference Proceedings

- Saghafian, S. and B. Tomlin “The Newsvendor under Demand Ambiguity-Aversion: A Data and Information-Driven Approach” Refereed Extended Abstract, *Proceedings of 2015 Manufacturing and Service Operations Management (MSOM) Conference*.
- Saghafian, S. and B. Tomlin “The Newsvendor under Demand Ambiguity: Combining Data with Moment and Tail Information,” Refereed Extended Abstract, *Proc. of 2014 Manufacturing and Service Operations Management (M&SOM)*.
- Saghafian, S. and M.P. Van Oyen “Flexibility of Reliable Suppliers and Monitoring of Unreliable Suppliers: How Much Should a Manufacturer Invest?” Refereed Extended Abstract, *Proc. of 2008 Manufacturing & Service Operations Management (M&SOM)*.
- Saghafian, S., Van Oyen, M.P., and B. Kolfal “A New Policy for the Control of Parallel Queueing Systems,” *Proceedings of 2009 NSF Engineering Research and Innovation Conference*, Honolulu, Hawaii.
- Saghafian, S. and M.P. Van Oyen “The Value of Operational Flexibility and Risk Level Information in Supply Chains under Disruption,” *Proceedings of 2008 NSF Engineering Research and Innovation Conference*, Knoxville, Tennessee.
- Saghafian, S. and M.R. Akbari “A Service Level Based Approach to Supply Chain Network Design”, *Proceedings of International Conference on Operations and Supply Chain Management (OSCM 2005)*, Bali, Indonesia.
- Saghafian, S. and M.R. Akbari “Location-Allocation Decisions For Supply Chain Networks Management: A Customer Satisfaction Focus,” *Proceedings of 3rd International Management Conference*, 2005.
- Saghafian, S. and M.R. Akbari “An Integrated Approach to Supply Chain Network Design with Service Level Consideration,” *Proceedings of First National Conference on Logistics and Supply Chain*, 2005.
- Saghafian, S. and M.R. Akbari “Integrative Cell Formation and Layout Design in Cellular Manufacturing Systems,” 1st Edition, *Proceedings of 3rd International Conference of Industrial*

Engineering (IIEC 2004).

- Saghafian, S. and M.R. Akbari "An Integrated Approach to Supply Chain Network Design with Service Level Consideration," 2nd Edition, *Proceedings of 4th International Conference of Industrial Engineering* (IIEC 2005).
- Saghafian, S. and M.R. Akbari "A New Hybrid Metaheuristic Approach to Cellular Manufacturing Systems Design," *IEEE conference of Computational Intelligence: Methods and Applications (CIMA 2005)*, Istanbul, Turkey.

Other Publications

- Saghafian, S., G. Austin, and S.J. Traub(M.D.) "Operations Research/Management: The prescription for Emergency Departments?" *IIE Magazine* (featured article), 2015.
- Saghafian, S. and M.P. Van Oyen "Managing supply risks: Should you monitor your risky suppliers? Inject flexibility into your backup system?" *IIE Magazine* (featured article), 2012.
- Saghafian, S. "Heuristic Algorithms for Terminal Assignment Problem," *Behbood Industrial Engineering Journal*, 2002, 9, 57-61.
- Saghafian, S. "Assuring Performance in E-commerce Systems," *Behbood Industrial Engineering Journal*, 2002, 11 122-127.
- Saghafian, S. "Applications of WLANs: Wireless Local Area Networks," *Behbood Industrial Engineering Journal*, 2002, 7, 51-54.
- Saghafian, S. "An Introduction to StarOffice 5.2," *Behbood Industrial Engineering Journal*, 2001, 5, 61-66.
- Saghafian, S. "Hacking Techniques," *Arpanet*, 2002, 3, 55-63.
- Saghafian, S. "Windows Systems: a Review," *Behbood Industrial Engineering Journal*, 2002, 9, 62-65.
- Saghafian, S., M. Jalilpour and M. Setak "Applications of Neural Networks in Prediction," *Proceedings of First Iranian National Conference on Logistics and Supply Chain*, 2005.
- Saghafian, S., and M. Setak "Applications of Fuzzy Theory in Inventory and Production Control," *Proceedings of First Iranian National Conference on Logistics and Supply Chain*, 2005.
- Saghafian, S. , M. Setak "Vehicle Routing Problem with Backhauls and Heterogeneous Vehicles," *Ph.D. Thesis Chapter*, (co-authored with Ph.D. Candidate M. Setak)