Updated 3/22/24

Sigurdur Olafsson

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Industrial & Manufacturing Systems Engineering
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ACADEMIC POSITIONS

Associate Professor, Industrial and Manufacturing Systems Engineering, Iowa State University, 2004 - present

Assistant Professor, Industrial and Manufacturing Systems Engineering, Iowa State University, 1998 - 2004

DEGREES

Ph.D., Industrial Engineering, University of Wisconsin-Madison, 1998

M.S., Industrial Engineering, University of Wisconsin-Madison, 1996

B.S., Mathematics, University of Iceland, Reykjavik, 1994

RESIDENT INSTRUCTION

Over the past few years, I have taught the following classes:

- Undergraduate: IE 413 and IE 483
- Graduate: IE 513, IE 519, IE 583.

GRADUATE STUDENTS

PH.D. DEGREE

1. Shayan Tohidi
2. Mohammad Mohammadzadeh. Co-advisor with Gul Kremer.
3. Atafeh Anisi. Co-advisor with Gul Kremer.
4. Gaurav Arwade
5. Atousa Arzanpour
6. Hanisha Vermireddy, PhD (2022)
7. Reyhaneh Bijari, PhD (2022)
8. Samira Karimzadeh, PhD (2021)
9. Maryam Mehr, PhD (2020). *Co-Major professor with Lizhi Wang*.
10. Hieu Pham, Ph.D (2018)
11. Walter Bennette, PhD (2014)
12. Lawrence Mosley, PhD (2013)
13. Youngrok Lee, PhD (2013)

14. Rui Yang, PhD (2012)
15. Maitri Thakur, Ph.D. (2010). *Co-Major professor with Charles Harburgh*
16. Jong-Seok Lee, PhD (2009)
17. Alireza Kabirian, PhD (2009)
18. Somchan Vuthipadadon, PhD (2009)
19. Shuning Wu, PhD (2007)
20. De Castillo Zoila Guerra, PhD (2006). *Co-major professor with J. Jackman*
21. Jaekyung Yang, Ph.D. (2006)
22. Xiaonan Li, PhD (2006)
23. Jaeyeon Won, PhD (2004)
24. Dean DeCock, PhD (2003). *Co-major professor with M. Morris*
25. Jumi Kim, PhD (2002)
26. Sameh Al-Shihabi, PhD (2002)

MASTERS DEGREE

1. Mriga Kher, MS (2022)
2. Gaurav Arwade, MS (2021)
3. Ajinka Koshti, MS (2021)
4. Ashley Swift, concurrent BS/MS (2019)
5. Pallavi Dubey, MS (2015)
6. Dongwook Kim, MS (2015)
7. Tianxiang Gao, MS (2015)
8. Maan Alduiji, MS (2014)
9. Aditya Shanbhag, MS (2014)
10. Mengmeng Chen, MS (2013)
11. Bill Rowcliff, MS (2013)
12. Humberto Fuentes Saenz, MS (2011)
13. Walter Bennette, MS (2011)
14. Xiaoli Yang, MS (2011)
15. Justin Schomburg, MS (2011)
16. Yanjun Shi, MS (2010)
17. Gunhuung Cho, MS (2009)
18. Venkatesh Selvaraj, MS (2005)
19. Nikhil Vijaykumar Bhagwat, MS (2005)
20. Tony Cyriac, MS (2005)
21. Sudhakar Chinnaswamy, MS (2004)
22. Rohit Jain, MS (2004)
23. Jagpreet Chhatwal, MS (2004)
24. Wael F Elwakeil, ME (2004)
25. Karthik Viswanathan, MS (2004)
26. Sridhar Pachiappan, MS (2004)

27. Premnath Gopinath, MS (2004)
28. Robert Ellis Benson ME (2004)
29. Rama-Malraux V Vangala, MS (2003)
30. Ajay Venugopalan, MS (2003)
31. Jeffrey C Schick, ME (2003)
32. Ganesan Subramaniam, MS (2002)
33. Manikanda Raja Venkatesan, MS (2001)
34. Nallaalaghu, MS (2001)
35. Nithin Gopinath, MS (2000)
36. Raja Adaikalasamy, MS (2000)
37. William James Leuenberger, MS (2000)
38. Ryan Jonathan Rand, ME (2000)
39. Deddy P Koesrindartoto, MS (1999)

PROFESSIONAL SOCIETIES AND ORGANIZATIONS

Professional Membership

Institute of Operations Research and Management Science, Membership, 1998 - present

Institute of Industrial Engineers, Membership, 1998 - present

American Society of Engineering Education, Membership, 1998 - present

Editorship

Management Science and Financial Engineering, Associate Editor, 2012 – present.

International Journal of Operational Research, Editorial Board, 2006 – present.

Methodology and Computing in Applied Probability, Associate Editor, 2007 – 2009.

Computers & Operations Research, Operations Research and Data Mining, Guest Editor, Volume 33, Issue 11, 2006.

Leadership

Co-Chair, *The Second Midwest Statistical Machine Learning Colloquium*, Iowa State University, May, 2019.

Organizing Committee Member, *The First Midwest Statistical Machine Learning Colloquium*, Iowa State University, May 9, 2018.

Program Committee Member, 6th International Conference on Information Visualization Theory and Applications (IVAPP 2015), March 11-14, 2015, Berlin, Germany.

Program Committee Member, 6th International Conference on Knowledge Discovery and Information Retrieval (KDIR 2014), October 21-24, 2014, Rome, Italy.

Program Committee Member, 5th International Conference on Knowledge Discovery and Information Retrieval (KDIR 2013), September 19-22, 2013, Vilamoura, Portugal.

Track Chair, ASEE Annual Conference, Chicago, Industrial Engineering Track, 2006

Organizers, INFORMS Workshop on Artificial Intelligence and Data Mining, Pittsburgh, PA, 2006

Session Chair, INFORMS Annual Meeting, Improving Decision Tree Induction, Pittsburgh, PA, 2006

Newsletter Coordinators, Institute of Operations Research and Management Science, (Data Mining Section), 2003 – 2006

Reviewer, National Science Foundation for Manufacturing Enterprise Systems Program, 2005, 2007

Reviewer, National Science Foundation for Operations Research Program, 2005

President, Institute of Industrial Engineers, Computer & Information Systems Division, 2003- 2005

Newsletter Coordinator, American Society of Engineering Education, Industrial Engineering Division, 2004 – 2005.

Reviewer, ASEE Annual Conference, "Innovative IE Curricula and courses," Industrial Engineering Division, 2004

Track Chair, INFORMS Annual Meeting, "Data Mining and Knowledge Discovery," 2004

Session Chair, INFORMS Annual Meeting, "Optimization in Data Mining", and, "Clustering Applications & Evaluation", 2004

Session Chair, Industrial Engineering Research Conference, "Data Mining," Houston, Texas, 2004

Secretary, American Society of Engineering Education Industrial Engineering Division, 2003 - 2004

Liason, Institute of Industrial Engineers, Central Iowa Chapter, 2003

Reviewer, National Science Foundation for the Information Technology Research Program, 2003

INSTITUTIONAL SERVICE

University

Data Driven Science Faculty Steering Committee, 2015

Business Analytics Masters, 2013 – 2015

College

Undergraduate Scholarships 2021 – present

Kiewitt Scholars Committee, 2021 - 2023

Honors and Awards Committee, 2015 - 2021

Big Data Search Committee, 2013 - 2014

Research Grants Committee, 2006 - 2012

College Cluster Hire, Member, 2006 – 2009

Professional Development Committee, Member, 2005 – 2007.

Department

Honors, Awards and Scholarships (chair), 2014-present

Fact Finding Committee (D. Davarnia), 2024

Fact Finding Committee (Q. Li), 2023

Search Committee, 2022-23

Tenure Fact Finding Committee (G. Hu), 2015

Preliminary Review of Probationary Faculty (G. Hu), 2013-14

Tenure Fact Finding Team (L. Wang), 2012

Space, Facilities Planning & Educational Resources, 2001 - 2012

Graduate Committee, 1999 – 2012

Post-tenure Review (J. Jackman), 2010

Faculty Hire Committee (chair), 2006 - 2009

GRANTS/CONTRACTS/GIFTS

1. S. Olafsson (PI). Advanced Decision Support for Data Driven Plant Breeding. *Syngenta See*ds. $415,000. October 1, 2019 – March 30, 2022.
2. S. Olafsson (PI), G. Kremer, S. Ryan and S. Vardeman. *Advanced Decision Support for Data-Driven Plant Breeding*. *Syngenta Seeds*. $150,000, July 1, 2018 – June 30, 2019.
3. "Exploratory Research on Critical Factors, Potential Methods, Software and Usability-Utility Trade-Off," Olafsson (PI), Kremer, Ryan, Vardeman and Nordman. *Syngenta Seeds*. $114,317.00. April 1, 2017 – March 31, 218.
4. "Data Science for Seed Variety Selection Problem," Olafsson (PI), Kremer, Ryan, Vardeman and Nordman. *Syngenta Seeds*. $74,242.00. August 1, 2017 – July 31, 218.
5. A web-based interface for an expert system to improve data collection from law enforcement, *USACIL* (through Midwest Forensics Resource Center), January 1, 2013 – December 31, 2013.

6. Automating Crime Laboratory Evidence Submission, *National Institute of Justice* through the Midwest Forensics Resource Center Technical Innovations in Management and Infrastructure program (TIMI). May 1, 2011 – May 15, 2013.
7. A TEACH grant to the NSF-sponsored Curriculum Reform Group*, Center for Teaching Excellence Award* (2004-01-05)
8. Throughput Improvement in an Assembly Line, *Rockwell Automation* and *CATD* (2003-08-30)
9. An Active Learning Environment for Information Technology Across the Curriculum, *National Science Foundation* (2003-12-31)
10. An Investigation of Customer Purchasing Patterns for Life & Health Insurance Products, *Principal Financial Group* (2002-09-13)
11. An Enabling System for Market-Driven Collaborative Product Design and Recycling, *National Science Foundation* (2000-08-01)

PUBLICATIONS

Book

Shi, L and S. Olafsson. 2008. *Nested partitions optimization: methodology and applications*. International Series in Operations Research & Management Science, **109,** Springer.

Journal Articles[1]

1. A. Anisi♦, G. Okudan-Kremer and S. Olafsson (2024). "Insights from Dynamic Pricing Scenarios for Multiple-generation Product Lines with an Agent-based Model using Text Mining and Sentiment Analysis," *International Journal of Advances in Production Research*, **1**: 24-45.
2. H. Chikez♦, D. Maier, S. Olafsson, S. Sonka (2023). "Identifying Critical Drivers of Mango, Tomato, and Maize Postharvest Losses (PHL) in Low-Income Countries and Predicting Their Impact," *Agriculture* **13** (10), 1912.
3. H. Vemireddy♦ and S. Olafsson. 2023. A regression approach to identify discriminating locations. *Crop Science*, 63, 598–612. https://doi.org/10.1002/csc2.20873
4. H. Pham♦, J. Reisner♦, A. Swift♦, S. Olafsson and S. Vardeman. 2022. "Crop Phenotype Prediction using Bclustering to Explain Genotype-by-Environment Interactions," *Frontiers in Plant Science*. doi: 10.3389/fpls.2022.975976
5. H. Pham♦ and S. Olafsson. 2020. "On the Cesáro Averages for Weighted Trees of the Random Forest" *Journal of Classification*, 37: 223-236.
6. J. Li, J. Reisner♦, H. Pham♦, S. Olafsson, S. Vardeman. 2020. "Biclustering with Missing Data," *Information Sciences*, 510: 304-316.
7. J. Reisner♦, H. Pham♦, S. Olafsson, and S. Vardeman. 2019. "biclustermd: An R Package for Performing Biclustering with Missing Values," *R Journal*, 11(2): 69-84.

[1] A diamond (♦) next to a name Indicates a current or former student

8. S. Karimzadeh♦ and S. Olafsson. 2019. "Data Clustering using Proximity Matrices with Missing Data," *Expert Systems with Applications*, 126: 265-276.
9. H. Pham♦ and S. Olafsson. 2019. "Bagged Ensembles with Tunable Parameters," *Computational Intelligence*, 35(1): 184-203.
10. J. S. Lee♦ and S. Olafsson. 2013. "A Meta-learning Approach for Determining the Natural Number of Clusters in Data," *Information Science*, **232**, 208-224.
11. R. Yang♦ and S. Olafsson. 2011. "Classification for Predicting Offender Affiliation with Murder Victims," *Expert Systems with Applications*, **38**(11), 13518-13526.
12. J. Jackman, Z. Guerra de Castillo♦ and S. Olafsson. 2011. "Stochastic Flow Shop Scheduling Model for the Panama Canal," *Journal of the Operational Research Society*, **62**(1), 69-80.
13. J. S. Lee♦ and S. Olafsson. 2011. "Data Clustering by Minimizing Disconnectivity," *Information Sciences*, **181**(4), 732-746.
14. Kabirian♦ and S. Olafsson. 2011. "Continuous Optimization via Simulation Using Golden Region Search," *European Journal of Operational Research*, **208**(1), 19-27.
15. S. Olafsson and X. Li♦. 2010. "Learning Effective New Dispatching Rules from Optimal Scheduling Data," *International Journal of Production Economics*, **128**(1): 118-126.
16. M. Thakur♦, S. Olafsson, J.S. Lee♦, C.R. Hurburgh. 2010. "Data Mining for Recognizing Patterns in Foodborne Disease Outbreaks," *Journal of Food Engineering*, **97**, 213-227.
17. S. Al-Shihabi♦ and S. Olafsson. 2010. "A Hybrid of Nested Partitions, Binary Ant System and Linear Programming for the Multidimensional Knapsack Problem," *Computers & Operations Research*, **37**(2), 247-255.
18. J. Yang♦ and S. Olafsson. 2009. "Near Optimal Feature Selection for Large Databases," *Journal of the Operational Research Society*, **60**, 1045-1055.
19. J. Kim♦, J. Yang♦ and S. Olafsson. 2009. "An Optimization Approach to Data Clustering," *Journal of the Operational Research Society*, **60**, 1069-1084.
20. Lee♦, J.S. and S. Olafsson. 2009. "Two-Way Cooperative Prediction for Collaborative Filtering Recommendations," *Expert Systems with Applications*, **36**(3), 5353-5361.
21. Olafsson, S., X. Li♦, and S. Wu♦. 2008. Operations research and data mining. *European Journal on Operational Research,* **187**, 1429-1448.
22. Vuthipadadon♦, S., and S. Olafsson. 2007. An integer programming approach for scheduling inbound calls in call centers. *International Journal on Operational Research*, **2**(4), 414-428.
23. Yang♦, J., and S. Olafsson. 2006. Optimization-based feature selection with adaptive instance sampling. *Computers and Operations Research*, **33**(11), 3088-3106.
24. Olafsson, S. 2006. Introduction to operations research and data mining. *Computers and Operations Research*, **33**(11), 3067-3069. (Editorial)
25. Olafsson, S., and J. Yang♦. 2005. Intelligent partitioning for feature relevance analysis. *INFORMS J. on Computing*, **17**(3), 339-355.
26. Li♦, X., and S. Olafsson. 2005. Discovering dispatching rules using data mining. *Journal on Scheduling*, **8**(6), 515-527.

27. Won♦, J., and S. Olafsson. 2005. Joint order batching and order picking in warehouse operations. *International Journal of Production Research*, **43**(7), 1427-1442.
28. Ryan, S., J. Jackman, F. Peters, S. Olafsson, and M. Huba. 2004. The engineering learning portal for problem solving: experience in a large engineering economy class. *The Engineering Economist*, **49**, 1-20.
29. Olafsson, S. 2004. Two-stage nested partitions method for stochastic optimization. *Methodology and Computing in Applied Probability*, **6**, 5-27.
30. Olafsson, S., and L. Shi. 2002. Ordinal comparison via the nested partitions method. *Journal of Discrete Event Dynamic Systems*, **12**, 211-239.
31. Shi, L., S. Olafsson, and Q. Chen. 2001. An optimization framework for product design. *Management Science*, **47**, 1681-1692.
32. Shi, L., and S. Olafsson. 2000. Nested partitions method for stochastic optimization. *Methodology and Computing in Applied Probability*, **2**, 37-58.
33. Shi, L., and S. Olafsson. 2000. Nested partitions method for global optimization. *Operations Research*, **48**, 390-407.
34. Shi, L., and S. Olafsson. 2000. Stopping rules for the stochastic nested partitions method. *Methodology and Computing on Applied Probability*, **2**, 37-58.
35. Olafsson, S., and L. Shi. 2000. A method for scheduling in parallel manufacturing systems with flexible resources. *IIE Transactions*, **32**, 135-146.
36. Shi, L., S. Olafsson, and N. Sun. 1999. New parallel randomized algorithms for the traveling salesman problem. *Computers and Operations Research*, **26**, 371-394.
37. Shi, L., S. Olafsson, and Q. Chen. 1999. A new hybrid optimization method. *Computers and Industrial Engineering,* **36**, 409-426.

Bulletins, Reports, or Conference Proceedings: Refereed

1. T. Gao, S. Olafsson and S. Lu. 2016. Minimum-Volume Weighted Symmetric Nonnegative Matrix Factorization for Clustering. In Proceedings of *GlobalSIP 2016*.
2. A. Kabirian ♦ and S. Olafsson. 2009. Simulation optimization with hybrid golden region search. In *Proceedings of the 2009 Winter Simulation Conference*, 551 – 562.
3. A. Kabirian ♦ and S. Olafsson. 2009. Selection of the Best with Stochastic Constraints. In *Proceedings of the 2009 Winter Simulation Conference*, 574 – 583.
4. L. Shi and S. Olafsson. 2009. Nested partitions method. In C. Floudas and P. Pardalos (Eds.) *Encyclopedia of Optimization*, 2nd ed, 2533-2539.
5. A. Kabirian♦ and S. Olafsson. 2007. Allocation of simulation runs for simulation optimization. In S. G. Henderson, B. Biller, M.-H. Hsieh, J. Shortle, J. D. Tew, and R. R. Barton, eds. *Proceedings of the 2007 Winter Simulation Conference*, 363-371.
6. L. Shi and S. Olafsson. 2007. Nested partitions method. In T. Klastorin (ed.), *Tutorials in Operations Research*, 1-22.

7. Yang♦, J., and S. Olafsson. June 2005. Near optimal feature selection. In *Proceedings of Workshop on Feature Selection for Data Mining, SIAM International Conference on Data Mining, Ontario, Canada*, 24-27.

8. Olafsson, S., V. Dark, J. Jackman, F. Peters, and S. Ryan. June 2005. Engineering problem solving in industrial engineering curriculum reform. In *Proceedings of the ASEE Annual Conference, Portland, Oregon*.

9. Olafsson, S., K. Saunders, J. Jackman, F. Peters, S. Ryan, V. Dark, and M. Huba. June 20, 2004. Implementation and assessment of industrial engineering curriculum reform. In *Proceedings of the 2004 American Society for Engineering Education Annual Conference, Salt Lake City, Utah*.

10. Jackman, J., K. J. Min, S. Olafsson, and S. Ryan. May 2004. Internet-based public policy participation for rural community citizens. In *Proceedings of the National Conference on Digital Government Research*, 450.

11. Olafsson, S. May 15, 2004. Recommender systems for high-stakes decision making. In *Proceedings of the Industrial Engineering Research Conference, Houston, Texas*.

12. Jackman, J., S. Olafsson, F. E. Peters, S. M. Ryan. May 18, 2004. Integrated curriculum to improve engineering problem solving. In *Proceedings of the Industrial Engineering Research Conference, Houston, Texas*.

13. Jackman, J., and S. Olafsson. 2004. Engineering learning portal: a learning management system for decision making. In *Proceedings of the Interservice/Industry Training, Simulation, and Education Conference (I/ITSEC)*.

14. Olafsson, S. May 18, 2003. Data mining for production scheduling. In *Proceedings of the Industrial Engineering Research Conference, Portland, Oregon*.

15. Yang♦, J., and S. Olafsson. May 18, 2003. Scalable optimization-based feature selection using random sampling. In *Proceedings of the Industrial Engineering Research Conference, Portland, Oregon*.

16. Jackman, J., S. Olafsson, F. Peters, S. Ryan, and M. Huba. May 18-20, 2003. The electronic learning portal: an active learning environment for information technology across the curriculum. In *Proceedings of the Industrial Engineering Research Conference, Portland, Oregon*.

17. Olafsson, S., M. Huba, J. Jackman, F. Peters, and S. Ryan. June 22, 2003. Information technology based activie learning: a pilot study of engineering economy. In *Proceedings of the 2003 American Society for Engineering Education Annual Conference, Nashville, Tennessee*.

18. Kim♦, J., and S. Olafsson. 2002. Two-stage NP method with inheritance. In *Proceedings of the 2002 Winter Simulation Conference (invited)*, 279-284.

19. Olafsson, S., and J. Yang. 2002. Scalable optimization-based feature selection. In *Proceedings of the Second SIAM Conference on Data Mining*, 53-63.

20. Olafsson, S., and J. Kim♦. 2002. Simulation optimization. In *Proceedings of the 2002 Winter Simulation Conference, (Invited tutorial)*, 79-84.

21. Olafsson, S., and J. Kim♦. 2001. Towards a framework for black-box simulation optimization. In *Proceedings of the 2001 Winter Simulation Conference*, 300-306.

22. Olafsson, S., K. J. Min, G. Subramaniam, S. Sulakhe, S. Varghese, and J. Yang. 2001. Internet-based management and archival system for recyclable products. In *Proceedings of IERC 2001*.

23. Olafsson, S., and N. Gopinath♦. 2000. Optimal selection probability in the two-stage nested partitions method for simulation-based optimization. In *Proceedings of the 2000 Winter Simulation Conference*, 736-742.

24. Olafsson, S. 1999. Iterative ranking-and-selection for large-scale optimization. In *Proceedings of the 1999 Winter Simulation Conference*, 479-485.

25. Olafsson, S., and L. Shi. 1999. Optimization via adaptive sampling and regenerative simulation. In *Proceedings of the 1999 Winter Simulation Conference*, 666-672.

26. Shi, L., and S. Olafsson. December 16-18, 1998. Hybrid equipartitioning job scheduling policies for parallel computer systems. In *Proceedings of the 37th Conference on Decision and Control, Tampa, Florida*.

27. Shi, L., and S. Olafsson. 1998. A new hybrid genetic algorithm. In *Late Breaking Papers at the Genetic Programming 1998 Conference, Stanford, CA,*, Koza, Stanford University Bookstore.

28. Olafsson, S., and L. Shi. 1998. Stopping criteria for a simulation-based optimization method. In *Proceedings of the 1998 Winter Simulation Conference,* D.J. Medeiros, E.F. Watson, J.S. Carson, and M.S. Manivannan, 743-750.

29. Shi, L., and S. Olafsson. 1997. An integrated framework for deterministic and stochastic optimization. In *Proceedings of the 1997 Winter Simulation Conference*, S. Andradottir, K.J. Healy, D.H. Withers, and B.L. Nelson, 358-365.

Book Chapters/Sections

1. Ryan, S., J. Jackman, P. Kumsaikaew, V. Dark and S. Olafsson. 2007. Use of information in collaborative problem solving. In *Learning to Solve Complex, Scientific Problems*. D. H. Jonassen, Mahwah, NJ: Lawerence Erlbaum.

2. Jackman, J., S. Ryan, S. Olafsson, and V. Dark. 2007. Meta-problem spaces and problem structure. In *Learning to Solve Complex, Scientific Problems*. D. H. Jonassen, Mahwa, NJ: Lawrence Erlbaum.

3. Lee♦, J. Y., and S. Olafsson. 2006. Multiattribute decision trees and decision rules. In Triantaphyllou and Felici (eds.), *Data Mining and Knowledge Discovery Approaches Based on Rule Induction Techniques*, 326-358.

4. Olafsson, S. 2006. Metaheuristics. In Nelson and Henderson (eds.), *Handbooks in Operations Research and Management Science VII*. 633-654, Elsevier.

5. Olafsson, S. 2003. Improving scalability of e-commerce systems with knowledge discovery. In Prabu, Kumara and Kamath (eds.), *Scalable Enterprise System - An Introduction to Recent Advances*. 193-216.

6. Ryan, S. M., K. J. Min, and S. Olafsson. 2003. Experimental study of scalability enhancements for reverse logistics e-commerce. In Prabu, Kumara and Kamath (eds.), *Scalable Enterprise System - An Introduction to Recent Advances,* 287-312.

PRESENTATIONS/POSTERS

Presentations: Invited

1. S. Olafsson (2018). "Supporting Seed Advancement Decisions with Predictive Modeling," *Plant Breeding Seminar*, Iowa State University, March 7, 2018.
2. S. Olafsson (2018). "Predictive Phenomics – Modeling Plant Yield as a Function of Genetics and Environment," *The First Midwest Statistical Machine Learning Colloquium*, Iowa State University, May 9, 2018 (***invited keynote***).
3. S. Olafsson (2018). "Big Data, Small Data: A Data Mining Application in Plant Breeding," *IMSE Graduate Seminar*, Iowa State University, February 14, 2018.
4. S. Olafsson (2018). "Finding Patterns in (Big) Data," *Institute of Industrial and Systems Engineering (IISE) Student Chapter General Meeting*, Iowa State University, February 21, 2018.
5. Olafsson, S. November 2007. Solving Large-Scale Discrete Optimization Problems: Introduction to the Nested Partitions Method, INFORMS Annual Conference, Seattle, Washington (invited tutorial).
6. Olafsson, S. November 2006. Ill-structured problem solving in an optimization course, INFORMS Annual Conference, Pittsburgh, Pennsylvania.
7. Olafsson, S. 2006. Optimization for data reduction, INFORMS Annual Conference, Pittsburgh, Pennsylvania.
8. Olafsson, S. November 2006. Data mining scheduling data: identifying best practices, INFORMS Annual Conference, Pittsburgh, Pennsylvania.
9. Olafsson, S. 2004. Data mining of student explanations in a web-based learning environment, INFORMS Annual Conference, Denver, CO.
10. Olafsson, S. July 7, 2004. Operations research and data mining, 20th European Conference on Operational Research (EURO XX), (invited plenary talk), Rhodes, Greece.
11. Olafsson, S. May 15, 2004. Data mining for best practices in scheduling data, Industrial Engineering Research Conference, Houston, Texas.
12. Olafsson, S. May 15, 2004. Recommender systems for high-stakes decision making, Industrial Engineering Research Conference, Houston, Texas.
13. Olafsson, S. October 25, 2004. Combinatorial optimization approach to feature selection, INFORMS Annual Conference, Denver, Colorado.
14. Olafsson, S. May 15, 2004. Integrated curriculum to improve engineering problem solving, Industrial Engineering Research Conference, Houston, Texas.

15. Olafsson, S. May 23, 2003. Data mining for production scheduling, Industrial Engineering Research Conference, Portland, Oregon.
16. Olafsson, S. September 2003. Information technology to integrate the curriculum and improve engineering problem solving, NSF Engineering & Education Computing Program Grantee Meeting, Washington D.C.
17. Olafsson, S. May 2003. The electronic learning portal: an active learning environment for information technology across the curriculum, Industrial Engineering Research Conference, Portland, Oregon.
18. Olafsson, S. July, 1999. Flexible workforce scheduling in parallel manufacturing environments, INFORMS Applied Probability Conference, Ulm, Germany.
19. Olafsson, S. December 1999. Optimization via adaptive sampling and regenerative simulation, 1999 Winter Simulation Conference, Phoenix, Arizona.

Presentations: Posters

20. J. Reisner, H. Pham, S. Olafsson and S. Vardeman (2018). "Bi-Clustering for Sparse Data" *The First Midwest Statistical Machine Learning Colloquium*, Iowa State University, May 9, 2018. ***Best poster award*** *(1 of 4 awarded)*.
21. S. Karimzadeh and S. Olafsson (2018). "Clustering with Incomplete Proximity Matrices," *The First Midwest Statistical Machine Learning Colloquium*, Iowa State University, May 9, 2018. ***Best poster award*** *(1 of 4 awarded)*.
22. S. Karimzadeh and S. Olafsson (2018). "Clustering with Incomplete Proximity Matrices," *6th Annual IMSE Research Symposium*, April 19th, Iowa State University.
23. H. Vemireddy and S. Olafsson (2018). "Training Data Construction for Soybean Yield Prediction," *6th Annual IMSE Research Symposium*, April 19th 2018, Iowa State University.
24. J. Reisner, H. Pham, S. Olafsson and S. Vardeman (2018). "Bi-Clustering for Sparse Data" *6th Annual IMSE Research Symposium*, April 19th, Iowa State University. ***Best poster award*** – ***graduate student presentation***.
25. A. Swift and S. Olafsson (2018). "Selection Bias in Seed Advancement" *6th Annual IMSE Research Symposium*, April 19th, Iowa State University. ***Best poster award*** – ***undergraduate student presentation***
26. S. Olafsson, S. Karimzadeh, and A. Swift (2018). "Engineering in Plant Breeding: Predictive Phenomics for Improved Decision Making," Engineering College Industrial Advisory Council Meeting, Iowa State University, April 5, 2018 (***invited poster***).

Presentations: Contributed

27. Lee, Y. and S. Olafsson. October 7, 2013. Data mining from imprecisely categorized cases in a medical surveillance database, INFORMS Annual Meeting, Minneapolis, MN.
28. Bennette, W. and S. Olafsson. October 7, 2013. Integer programming for instance selection in supervised learning. Computing Society Conference, Annapolis, Maryland.
29. Li, X., and S. Olafsson. January 7, 2005. Instance selection and decision tree induction for learning scheduling rules, INFORMS Computing Society Conference, Annapolis, Maryland.

30. Olafsson, S. May 14, 2005. Accounting for simulation output noise in optimization, IIE Annual Conference,, Atlanta, Georgia.

31. Olafsson, S. December 6, 2004. Engineering learning portal: a learning management system for decision making, Interservice/Industry Training, Simulation, and Education Conference (I/ITSEC), Orlando, Florida.

32. Olafsson, S. June 2003. Information technology based active learning: a pilot study for engineering economy, American Society for Engineering Education Annual Conference, Nashville, Tennessee.

33. Olafsson, S. December 2002. Simulation optimization, Winter Simulation Conference, San Diego, California.

34. Olafsson, S. April 2002. Scalable optimization-based feature selection, Second SIAM Conference on Data Mining, Arlington, Virginia.

35. Olafsson, S. December 2002. Two-stage NP method with inheritance, Winter Simulation Conference, San Diego, California.

36. Olafsson, S. December 2001. Towards a framework for black-box simulation optimization, 2001 Winter Simulation Conference, Arlington, Virginia.

37. Olafsson, S. May 2001. Internet-based management and archival system for recyclable products, The IERC, Dallas, Texas.

38. Olafsson, S. December 2000. Optimal selection probability in the two-stage nested partitions method for simulation-based optimization, The 2000 Winter Simulation Conference, Orlando, Florida.

39. Olafsson, S. December 1999. Iterative ranking-and-selection for large-scale optimization, The 1999 Winter Simulation Conference, Phoenix, Arizona.

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