
Curriculum Vita: Stephen Chick

Professor
Technology & Operations Management
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Research interests:

Stochastic simulation; Bayesian statistics and decision analysis; optimal learning; mathematical modeling of complex systems; stochastic processes; health contracts; applications to health care and operations management.

Academic Experience:

- 2008-** Novartis Chair for Healthcare Management; Director, Healthcare Management Initiative, INSEAD.
- 2009-2012** Area Chair, Technology and Operations Management, INSEAD.
- 2006-** Professor of Technology and Operations Management, INSEAD, Fontainebleau, France.
- 2001-2006** Associate Professor of Technology and Operations Management, INSEAD, Fontainebleau, France.
- 2001-2003** Associate Professor with Tenure, Dept. Industrial and Operations Engineering, Univ. Michigan, Ann Arbor (on leave of absence).
- 1995-2001** Assistant Professor, Dept. Industrial and Operations Engineering, Univ. Michigan, Ann Arbor.
- 1995** Visiting Scholar, Dept. Statistics, Stochastics, and Operations Research, Technical Univ. Delft, Holland, (January).
- 1992-1995** Teaching and Research Assistant, Systems Integration Laboratory, Dept. Industrial Engineering and Operations Research, Univ. California, Berkeley.

Education:

- 1995 Ph.D.** Industrial Engineering & Operations Research, UC Berkeley. Supported by NDSEG Fellowship, Dept. Defense, Office of Naval Research. Advisor: Max Mendel. Committee: Richard E Barlow, Jean Walrand.
- 1992 M.S.** Operations Research, UC Berkeley.
- 1990 B.S.** Mathematics, Stanford. Minor in Computer Science.

Industry Experience: See also Business Cases and Classroom Teaching (executive education) below.

- 2022-** Mentor, Voice of Healthcare Incubator: Transforming Health for Tomorrow. India. <https://vohincubator.org/>.
- 2002-2015** Co-Organizer, Industrial Excellence Award (“top factory” competition organized by INSEAD, WHU and media partners including *WirtschaftsWoche*). <https://industrial-excellence-award.eu/>.
- 1996-2000** Tauber Manufacturing Institute (TMI) faculty advisor for summer projects. Projects include Chrysler (production), Carrier (global production), and Eli Lilly (supply chain).
- 1989-1990** Project Manager, TechniCon Computer Services, Emeryville, CA. Developed and delivered CAD and facilities layout software distributed on multiple platforms to 1000+ seats.
- 1988-1989** Software Engineer, Raya Systems, Inc., Mountain View, CA. Part of a team that developed a diabetes analysis software package that was distributed to physicians worldwide.
- 1985-1988** Industrial Systems Analyst, CKGP & Associates, Birmingham, MI. Led a dozen simulation analysis projects as part of team that designed material handling systems for the automotive industry.

Honors and Awards:

- 18. Nominated, with Atalay Atasü, for ‘Best Practical’ intensive elective in INSEAD Masters in Management programme, Sustainable Business Model Innovation’, 2023.

17. INSEAD Dean's Commendation for Excellent Collegial Mentoring and Support (2022).
16. Winner, International Sepsis Forum (ISF) Abstract Award, for refereed abstract at European Society of Intensive Care Medicine, Oct 22-26, 2022, by van Mourik et al., see 'Other Presentations 73' below.
15. Fellow, Institute for Operations Research and the Management Sciences (INFORMS), Inducted 2021.
14. Elected officer of *INFORMS Health Application Society*: Vice President/President-Elect 2021. President 2022. Past President 2023.
13. Finalist, Production and Operations Management (POMS) 2021 College on Health Operations Management (CHOM) Best Paper Competition, for working paper version of 'Journal Article' 53 below.
12. Plenary speaker at the 2020 Winter Simulation Conference, December 2020. 'Health Resource Allocation: Lessons for Today from Past Outbreaks'. Video.
11. Runner-Up, 2018 Pierskalla Award (SE Chick, N Gans, O Yapar), from the INFORMS Health Applications Section, for working paper version of 'In Progress' 52 below.
10. The United Kingdom's National Institute for Health and Clinical Excellence and France's Haute Autorité de Santé, cite Journal Article 28 below for use in selecting most appropriate math model for a given health economic analysis.
9. Finalist, 2017 Pierskalla Award (S Zorc, SE Chick, S Hasija), from the INFORMS Health Applications Section, for working paper version of 'In Progress' 5 below.
8. Finalist, 2017 IBM Service Science Best Student Paper Award (S Zorc with SE Chick, S Hasija), from the INFORMS Service Science Section, for working paper version of 'In Progress' 5 below.
7. INSEAD Executive Education Programme (EDP) Director Award (2018-2019; 2016-17; 2015-2016; 2014-2015 for 24+ direction units with average effectiveness 4.7+). INSEAD EDP Teaching Award (2015-2016; for 40+ teaching units in exec ed with average effectiveness of 4.7+).
6. Runner-Up, 2015 Pierskalla Award (SE Chick, M Forster, P Pertile) from the INFORMS Health Applications Section, for working paper version of 'Journal Article' 47 below.
5. 2013 EFMD Case Writing Competition, Highly Commended Runner-Up in Entrepreneurship Category ('Laastari: Building a Retail Health Clinic Chain', Business Case 18 below, R Aggarwal and SE Chick, 2013).
4. Keynote: New challenges and opportunities for health modelers. 26 Mar 2013. Inst. for Mathematics and Its Applications: Conf. on Quantitative Modelling in the Management of Health and Social Care, London.
3. Keynote: Taxonomy of Model Structures for Health Economics. 3 Apr 2007. Inst. for Mathematics and Its Applications: Conf. on Quantitative Modelling in the Management of Health Care, London.
2. Winner, 2006 Pierskalla Award (SE Chick, H Mamani, D Simchi-Levi) from the INFORMS Health Applications Section, for working paper version of 'Journal Article' 34 below.
1. Keynote: Service Delivery System Improvements in the UK National Health Service. 30 Aug 2006. Hospital Management Asia 2006 Conference, Singapore.

Journal Articles: Computer code to accompany some articles at github.com/sechick.

55. Zorc S, I Tsetlin, S Hasija, SE Chick, 2023, The When and How of Delegated Search, *Operations Research*, in press. <https://doi.org/10.1287/opre.2019.0498>.
54. Chilingirian JA, SE Chick, G True, 2022, Editorial: The Science and Art of Value in Healthcare: Measures, Voices and Methods, *Frontiers in Public Health*, 24 nov 2022, <https://doi.org/10.3389/fpubh.2022.1089091>.
53. Alban A, SE Chick, M Forster, 2022, Value-based clinical trials: selecting recruitment rates and trial lengths in different regulatory contexts, *Management Science*, <https://doi.org/10.1287/mnsc.2022.4540>, in press. Code: [github:andres-alban/ValueBasedTrials](https://github.com/andres-alban/ValueBasedTrials).
52. SE Chick, N Gans, O Yapar, 2022, Bayesian Sequential Learning for Clinical Trials of Multiple Correlated Medical Interventions, *Management Science*, 68(7):4919-4938. Paper: doi.org/10.1287/mnsc.2021.4137. Code: [github:ozgeyapar/multiarmMatlab](https://github.com/ozgeyapar/multiarmMatlab).

51. Forster M., S. Brealey, S. Chick, A. Keding, B. Corbacho, A. Alban, A. Rangan, 2021, A Bayesian Decision-Theoretic Model of a Sequential Clinical Trial: Application to the ProFHER Pragmatic Trial, *Clinical Trials*, 18(6):647-656, doi.org/10.1177/17407745211032909.
50. Alban A, SE Chick, DA Dongelmans, AF van der Sluijs, WJ Wiersinga, APJ Vlaar, D Sent, 2020, ICU capacity management during the COVID-19 pandemic using a process simulation, *Intensive Care Medicine*, 46(8): 1624–1626, doi.org/10.1007/s00134-020-06066-7. Supplement: github:sechick/icu-covid-sim/ Online tool: <https://andres-alban.shinyapps.io/icu-covid-sim/>.
49. Kaligotla C, E Yücesan, SE Chick, 2020, Diffusion of Competing Rumors on Social Media, *Journal of Simulation*, DOI: <https://doi.org/10.1080/17477778.2020.1785345>.
48. Stevenson MD, Uttley L, JE Oakley, C Carroll, SE Chick, R Wong, 2020, Interventions to reduce the risk of surgically transmitted Creutzfeldt-Jakob disease: a cost-effective modelling review. *Health Technology Assessment*, v. 24(11): 1–150. See Pubmed link.
47. Chick SE, M Forster, P Pertile, 2017, A Bayesian Decision-Theoretic Model of Sequential Experimentation with Delayed Responses, *Journal Royal Statistical Society Series B*, 79(5): 1439-1462. Online Supplementary Material at [dx.doi.org/10.1111/rssb.12225](https://doi.org/10.1111/rssb.12225). Code: <https://github.com/sechick/htdelay>.
46. van der Sluijs AF, ER van Slobbe-Bijlsma, SE Chick, MB Vroom, DA Dongelmans, APJ Vlaar, 2017, The impact of changes in intensive care organization on patient outcome and cost effectiveness - A narrative review, *Journal of Intensive Care*, 5(13). [dx.doi.org/10.1186/s40560-016-0207-7](https://doi.org/10.1186/s40560-016-0207-7).
45. Chick SE, S Hasija, Nasiry J, 2017, Information Elicitation and Influenza Vaccine Production, *Operations Research*, 65(1): 75–96. [dx.doi.org/10.1287/opre.2016.1552](https://doi.org/10.1287/opre.2016.1552). An “Editor’s Choice” article. e-Companion.
44. Frazier PI, J Xie, SE Chick, 2016, Bayesian Optimization via Simulation with Pairwise Sampling and Correlated Prior Beliefs, *Operations Research* 64(2):542–559. [dx.doi.org/10.1287/opre.2016.1480](https://doi.org/10.1287/opre.2016.1480). e-Companion.
43. Aral K, SE Chick, Grabosch A, 2015, Multi-Level Preventive Care for Type 2 Diabetes, *IIE Transactions on Healthcare Systems Engineering*, special issue on *Healthcare Systems Simulation*, 5(3): 165–182. (one of two articles from issue highlighted in *IE Magazine*).
42. Chick SE, Huchzermeier A, Netessine S, 2014, Europe’s Solution Factories: Manufacturers in the developed world are discovering new ways to compete, *Harvard Business Review*, 92(4): 111–115. Summary.
41. Arlotto A, SE Chick, N Gans, 2014, Optimal Hiring and Retention Policies for Heterogeneous Workers who Learn. *Management Science*, 60(1): 110–129.
40. Mamani H, SE Chick, D Simchi-Levi, 2013, A Game Theoretic Model of International Influenza Vaccination Coordination. *Management Science*, 59(7): 1650–1670.
39. Chick SE, P Frazier, 2012, Sequential Sampling with Economics of Selection Procedures, *Management Science*, 58(3):550–569.
38. Chick SE, J Branke, C Schmidt, 2010. Sequential Sampling to Myopically Maximize the Expected Value of Information, *INFORMS Journal on Computing*, 22(1) 71–80.
37. Chick SE, N Gans, 2009, Economic Analysis of Simulation Selection Problems. *Management Science*, 55(3) 421–437. Online Companion.
36. Güneş ED, SE Chick, LN Van Wassenhove, 2010, Quality Competition for Screening and Treatment Services, *Annals of Operations Research*, 178(1): 201–222.
35. Stevenson MD, JE Oakley, SE Chick, K Chalkidou, 2009, The cost-effectiveness of surgical instrument management policies to reduce the risk of vCJD transmission to humans, *Journal of the Operational Research Society*, 60(4): 506–518.
34. Chick SE, H Mamani, D Simchi-Levi, 2008, Supply Chain Coordination and Influenza Vaccines, *Operations Research*, 56(6): 1493–1506. Special issue on OR in Health Care. Online Companion.
33. Loch CH, S Chick, A Huchzermeier, 2007, Can European Manufacturing Companies Compute? Industrial Competitiveness, Employment and Growth in Europe, *European Management Journal*, 25(4): 251–265.

32. Branke J, SE Chick, C Schmidt, 2007, Selecting a Selection Procedure, *Management Science*, 53(12): 1916–1932. With Online Companion.
31. He D, SE Chick, C-H Chen, 2007, Opportunity Cost and OCBA Selection Procedures in Ordinal Optimization for a Fixed Number of Alternative Systems, *IEEE Transactions on Systems, Man, Cybernetics C: Applications and Reviews*, 37(5): 951–961.
30. Lin X, JS Koopman, SE Chick, 2007, Mathematical Model Comparisons of Potential Nontypeable *Haemophilus influenzae* Vaccine Effects, *Journal of Theoretical Biology*, 245: 66–76.
29. Chick SE, 2006, Six Ways to Improve a Simulation Analysis, *Journal of Simulation*, 1(1): 21–28.
28. Brennan A, SE Chick, R Davies, 2006, A Taxonomy of Model Structures for Economic Evaluation of Health Technologies, *Health Economics*, 15(12): 1295–1310. Online Companion at <http://faculty.insead.edu/stephen-chick/research/online-companion-29>.
27. Ng S-H, SE Chick, 2006, Reducing Parameter Uncertainty for Stochastic Systems, *ACM Transactions on Modeling and Computer Simulation*, 15(1): 26–51.
26. Chick SE, YZ Wu, 2005, Selection Procedures with Frequentist Expected Opportunity Cost Bounds, *Operations Research*, 53(5): 867–878. With Online Companion.
25. Ng S-H, SE Chick, 2004, Design of Follow-Up Experiments for Improving Model Discrimination and Parameter Estimation, *Naval Research Logistics*, 51(8): 1129–1148.
24. Güneş ED, SE Chick, OZ Akşin, 2004, Breast Cancer Screening: Trade-offs in Planning and Service Provision, *Health Care Management Science*, 7(4): 291–303.
23. Chick SE, S Soorapanth, JS Koopman, 2003, Inferring Infection Transmission Parameters That Influence Water Treatment Decisions, *Management Science*, 49(7): 920–935.
22. Koopman JS, SE Chick, CS Riolo, CP Simon, G Jacquez, 2002, Stochastic effects on endemic infection levels of disseminating versus local contacts, *Mathematical Biosciences*, 180: 49–71.
21. Chick SE, K Inoue, 2002, Corrigendum: New Selection Procedures, *Operations Research*, 50(3): 566.
20. Chick SE, K Inoue, 2001, New Procedures for Identifying the Best Simulated System Using Common Random Numbers, *Management Science*, 47(8): 1133–1149.
19. Chick SE, 2001, Input Distribution Selection for Simulation Experiments: Accounting for Input Uncertainty, *Operations Research*, 49(5): 744–758.
18. Chick SE, K Inoue, 2001, New Two-Stage and Sequential Procedures for Selecting the Best Simulated System, *Operations Research*, 49(5): 732–743.
17. Koopman JS, G Jacquez, SE Chick, 2001, New Data and Tools for Integrating Discrete and Continuous Population Modeling Strategies, In Population Health and Aging: Strengthening the Dialog between Epidemiology and Demography. M. Weinstein, A. Hermalin, M.A. Stoto Eds. *Annals of the New York Academy of Sciences*, 954: 268–294.
16. Riolo CS, JS Koopman, SE Chick, 2001, Methods and measures for the description of epidemiologic contact networks, *Journal of Urban Health*, 78(3): 446–457.
15. Chick SE, JS Koopman, S Soorapanth, ME Brown, 2001, Infection Transmission System Models for Microbial Risk Assessment, *The Science of the Total Environment*, 274(1-3): 197–207.
14. Chick SE, DC Barth-Jones, JS Koopman, 2001, Bias Reduction for Risk Ratio and Vaccine Effect Estimators, *Statistics in Medicine*, 20(11): 1609–1624.
13. Koopman JS, SE Chick, CS Riolo, AL Adams, ML Wilson, MP Becker, 2000, Modeling Contact Networks and Infection Transmission in Geographic and Social Space Using GERMS, *Sexually Transmitted Diseases*, 27(10): 617–626.
12. Chick SE, A Adams, JS Koopman, 2000, Analysis and Simulation of a Stochastic, Discrete-Individual Model of STD Transmission with Partnership Concurrency, *Mathematical Biosciences*, 166(1): 45–68.

11. Chen C-H, J Lin, E Yücesan, SE Chick, 2000, Simulation Budget Allocation for Further Enhancing the Efficiency of Ordinal Optimization, *Discrete Event Dynamic Systems: Theory and Applications*, 10(3): 251–270.
10. Chick SE, T Olsen, K Sethuraman, K Steckle, CC White, 2000, A Descriptive Multi-Attribute Model for Reconfigurable Machining System Selection that Examines Buyer-Supplier Relationships, *International Journal of Agile Management Systems*, 2(1): 33–48.
9. Inoue K, SE Chick, C-H Chen, 1999, An Empirical Evaluation of Several Methods to Select the Best System, *ACM Transactions on Modeling and Computer Simulation*, 9(4): 381–407.
8. Adams A, DC Barth-Jones, SE Chick, JS Koopman, 1998, Simulations to Evaluate HIV Vaccine Trial Methods, *Simulation*, 71(4): 228–241.
7. Welch G, SE Chick, J Koopman, 1998, Effect of Concurrent Partnerships and Sex-Act Rate on Gonorrhea Prevalence, *Simulation*, 71(4): 242–249.
6. Chick SE, MB Mendel, 1998, New Characterizations of the No-Aging Property and the ℓ_1 -Isotropic Models, *Journal of Applied Probability*, 35(4): 903–910.
5. Chick SE, MB Mendel, 1998, Using Wear Curves to Predict the Cost of Changes in Cutting Conditions, *ASME Journal of Manufacturing Science and Engineering*, 120(2): 166–168.
4. Chick SE, J Shortle, P van Gelder, M Mendel, 1996, A Model For the Frequency of Extreme River Levels Based On River Dynamics, *Structural Safety*, 18(4): 261–276.
3. Black JJ, SE Chick, 1996, Michigan Simulation User Group Panel Discussion: How Do We Educate Future Discrete-Event Simulationists, *Intern. J. of Industrial Engineering*, 3(4): 223–232.
2. Chick SE, 1996, Bayesian Models for Limiting Dilution Assay and Group Test Data, *Biometrics*, 52: 1055–1062.
1. Chick SE, MB Mendel, 1996, An Engineering Basis for Statistical Lifetime Models With an Application to Tribology, *IEEE Transactions on Reliability*, 45(2): 208–215.

In Progress: Some available at <http://faculty.insead.edu/stephen-chick/research>.

8. N van Mourik, A Alban, F Uhel, A Vlaar, S Zoumpoulis, J Horn, MJ Schultz, MCA Muller, OL Cremer, MJM Bonten, WJ Wiersinga, T van der Poll, SE Chick, LA Van Vught, B Scicluna, MARS consortium, 2023, Blood Transcriptomic Endotypes and the Response to Treatment Modalities in Sepsis: A Prospective Cohort Study, submitted to *Critical Care Medicine*.
7. Yapar O, SE Chick, N Gans, 2022, Conditional Approval and Value-Based Pricing for New Health Technologies, under first revision for *Management Science*. *ssrn*.
6. Alban A, S Chick, S Zoumpoulis, 2022, Learning Personalized Treatment Strategies with Predictive and Prognostic Covariates, major revision for *Management Science*. *ssrn*.
5. Zorc S, SE Chick, S Hasija, 2023, Outcomes-Based Reimbursement Policies for Chronic Care Pathways, https://ssrn.com/abstract_id=2973048, revised and second resubmit for *Management Science*.
4. L Flight, A Brennan, SE Chick, M Forster, S Julious, P Tharmanathan, 2022, Value-Adaptive Clinical Trial Designs for Efficient Delivery of Research – Actions, Opportunities and Challenges for Publicly Funded Trials, *in preparation for submission*. Also at: <https://eprints.whiterose.ac.uk/189321/>.
3. L Flight, A Brennan, SE Chick, 2023, A tutorial on value-based adaptive designs: What if the Big CACTUS trial had used a value-based sequential two-arm design with adaptive stopping?, *submitted to Value in Health*.
2. S.E. Chick, Scott Hawkins, David Soberman, 2023, What happens when people have more information to make healthcare coverage choices? Choosing healthcare coverage for the first time. *resubmitted to Humanities and Social Sciences Communications*.
1. Danielle Sent, Delanie M. van der Muelen, Andres Alban, Stephen E Chick, Ilse J.A. Wissink, Alexander PJ Vlaar, Dave A Dongelmans, 2022, A quality improvement study on how a simulation model can help decision making on organization of ICU wards, submitted to *BMC Health Services Research*.

Books/Chapters/Commentaries/Public Documents:

16. Martin Forster, Laura Flight, Belen Corbacho, Ada Keding, Sarah Ronaldson, Puvan Tharmanathan, Charlie Welch, Alan Brennan, S.E. Chick, 2021, Report for the EcoNomics of Adaptive Clinical Trials (ENACT) project: Application of a Bayesian Value-Based Sequential Model of a Clinical Trial to the CACTUS and HERO Case Studies (with Guidance Material for Clinical Trials Units), UK NIHR Final Project Report. White Rose ePrint.
15. Marie Garin et al., 2021. Epidemic Models for COVID-19 during the First Wave from February to May 2020: a Methodological Review. at arxiv.org/abs/2109.01450 as of 3 sept 2021.
14. Stevenson M, L Uttley, J Oakley, C Carroll, SE Chick, R Wong, 13 Nov 2019, IPG666: Systematic review of Creutzfeldt-Jakob disease (CJD) risk via surgical interventional procedures and economic evaluation of management policies to reduce this risk, UK NICE National Institute for Health and Clinical Excellence, Available 23 Aug 2019, at <https://www.nice.org.uk/guidance/ipg666/evidence>.
13. Chen CH, SE Chick, LH Lee, NA Pujowidianto, 2014, Ranking and Selection: Efficient Simulation Budget Allocation, In *Handbook on Simulation Optimization*, M. Fu, Editor. Springer, International Series in Operations Research and Management Science.
12. SE Chick, 2012, Book review for *Optimal Learning* by Powell and Ryzhov. INFORMS Journal on Computing. 24(4): BR8-BR11, <http://www.informs.org/Pubs/IJOC/Book-Reviews/Volume-24-2012>.
11. Soorapanth S, SE Chick, 2013, Assessing Prevention for Positives: Cost-Utility Assessment of Behavioral Interventions for Reducing HIV Transmission, Chap. 8 in *Operations Research and Health Care Policy*, Ed. G. Zaric, Vol. 190: 157–178, Springer, New York.
10. Chick SE, A Huchzermeier, CH Loch, 2010, Management Quality and Operational Excellence, p. 153–166, In *Managing Money, Measurement and Marketing in the Allied Health Professions*, vol. 4 in series for allied health professionals, R. Jones, F. Jenkins, Ed., Radcliffe Publishing Ltd., Abingdon, Oxford.
9. Loch CH, SE Chick, A Huchzermeier, 2008, Management Quality and Competitiveness: Lessons from the Industrial Excellence Award, Springer-Verlag, Berlin Heidelberg. <https://www.springer.com/gp/book/9783540791836> Also in German: Managementqualität und Wettbewerbsfähigkeit: Was Manager vom Industrial Excellence Award lernen können (2008).
8. Chick SE, 2007, Comment on ‘Simple Models of Influenza Progression within a Heterogeneous Population’ by Richard C. Larson, *Operations Research*, 55(3): online commentary. (invited) Available at <http://orforum.blog.informs.org/>.
7. Stevenson M, J Oakley, SE Chick, 2006, IPG196: Patient safety and reduction of risk of transmission of Creutzfeldt-Jakob disease (CJD) via interventional procedures: Final report, UK NICE National Institute for Health and Clinical Excellence, Available 21 Nov 2006, at <https://www.nice.org.uk/guidance/ipg196/history/>.
6. Chick SE, 2006, Subjective Probability and Bayesian Methodology. In *Handbook in Operations Research and Management Science: Simulation*, Henderson, S.G., Nelson, B.L., Eds., p. 225–257. Elsevier.
5. Loch C, SE Chick, 2006, II.2 Management Quality and Factory Performance (p. 32–39), IV.6 The Role of Management Quality in the Context of Operational Excellence (p. 131–137). In *Operational Excellence in the Pharmaceutical Industry*, T. Friedli, M. Kickuth, F. Stieneker, P. Thaler, J. Werani, Eds. Editio Cantor Verlag.
4. Chick SE, S Soorapanth, JS Koopman, 2004, Microbial Risk Assessment for Drinking Water. In *Operations Research and Health Care: Handbook of Methods and Applications*, Brandeau, M.L., Sainfort, F., and Pierskalla, W.P., Eds., p. 467–494. Kluwer Academic Publishers.
3. Koopman JS, X-M Lin, SE Chick, JR Gilsdorf, 2004, Non-Capsulated *Haemophilus influenzae* Immunity Affects Transmission More Than Pathogenicity. In *Operations Research and Health Care: Handbook of Methods and Applications*, Brandeau, M.L., Sainfort, F., and Pierskalla, W.P., Eds., p. 811–842. Kluwer Academic Publishers.
2. Chick SE, M Hashimoto, K Inoue, 2001, Bayesian Sampling Allocations for Selecting the Best Population with Different Sampling Costs and Known Variances. In *System and Bayesian Reliability*, Xie, M., Irony, T.Z., Hayakawa, Y., eds., p. 333–349. World Scientific.
1. Chick SE, J Shortle, P van Gelder, M Mendel, 1996, A Physics-Based Approach to Predicting the Frequency of Extreme River Levels, with critique and response. In *Engineering Probabilistic Design and Maintenance for Flood Protection*, Cooke, R.M., Mendel, M., Vrijling, H., eds., p. 87–103, 135–138. Kluwer.

Edited Volumes:

5. Proceedings of the 2016 Winter Simulation Conference, 2016, TMK Roeder, PI Frazier, R Szechtman, E Zhou, T Huschka, and SE Chick, editors. Piscataway, NJ: Institute for Electrical and Electronics Engineering.
4. Chick S, E Yücesan, 2010, Guest Editors, *Special Issue of ACM Transactions on Modeling and Computer Simulation for the First INFORMS Simulation Society Research Workshop*, 10(1), with preface (pp. 9–10).
3. Chick S, E Yücesan, C-H Chen, S Henderson, eds., 2007, *Proceedings of the First INFORMS Simulation Society Research Workshop*, Fontainebleau, France.
2. Yücesan E, S Chick, eds., 2004, *FUTURE BUSINESS TECHNOLOGY (FUBUTEC) Conference Proceedings*, EUROSIS, Ghent, Belgium. (conference held in Fontainebleau, France)
1. Chick SE, PJ Sánchez, D Ferrin, DJ Morrice, eds., *Proceedings of the 2003 Winter Simulation Conference*, Institute of Electrical and Electronics Engineers, Inc. Piscataway, New Jersey.

Business Cases/Pedagogical Materials:

Cases that are available for use in non-INSEAD programmes can be found at www.thecasecentre.org.

38. S. Kumar, S.E. Chick, 2023, Carbon27's Pivot: A Virtual Prototype with Generative AI. (INSEAD Case 09/2023-6842-Ed.)
37. Abed Kayyal, S.E. Chick, L. van Wassenhove, P. Yadav, 2023, Should Kazuria produce vaccines locally with Univercells technology? Vaccine Manufacturing Capacity in Low- and Middle-Income Countries (in progress, draft available on request).
36. Lifelong learning hub video interviews with: * Dr Nazneen Rahman of Yewmaker, on the sustainable medicines project; * Dr Wangari Ng'ang'a formerly of Kenyan Presidents office of Strategy, on designing, piloting and deploying universal health coverage in Kenya.
35. Lisa Simone Duke, Ridhima Aggarwal, Chenyi Lin, Hyunjun Kim, Stephen E Chick, 2023, Fertile Ground for Expansion: Nabta Health's Global Reach (INSEAD Case 09/2022-6782-Ed).
34. Aggarwal, Ridhima, Valerie Hawley, Chengyi Lin, Stephen E Chick. 2022. Envisioning the Opportunity: Al-mouneer Focuses on Growth in the UAE. (02/2022-6478). With *Virtual Reality* footage option.
33. L Duke, R Aggarwal, SE Chick, I Kivleniece, and I Stern. 2021. Walking the Path of Expansion: MiracleFeet's Journey Toward a Global Footprint. (02/2021-6656-Ed). linkedin summary of launch with *Virtual Reality* case.
 - Service Operations Management/Experience Design TN (and *VR footage*), with above authors and A Epstein.
32. N Brandwein, R Aggarwal, SE Chick, 2021. Digitally-enabled healthcare delivery in India: Meddo and the convergence of technology and medicine. (prerelease version 01/2021-6628).
31. R Aggarwal, SE Chick, 2021. Learning to Change: Harnessing the Power of Data Intelligence to Improve Medical Diagnostics. (prerelease version 01/2021-6609).
30. S Kaushal, R Aggarwal, SE Chick, W Ng'ang'a, 2021. The Journey to Universal Health Coverage: Learning from Kenya's Pilot Programs. (prerelease version 01/2021-6631-Ed).
29. Chick SE, 2019. The Physics of Patient Flows and Waiting Lists in Health Care Pathways (2018). With ProModel computer simulation models (01/2019-5214-Ed; supersedes 06/20104-5214, see 06/2014-5214 for TN).
28. R Aggarwal, I Stern, M Lee, and SE Chick. 2018. Strategic Options to Scale Unjani Clinics NPC by 2030. (10/2018-6445-Ed).
27. R Aggarwal, SE Chick, 2017, Neighbours for Active Living: It Takes a Community to Maintain Health and Wellbeing of Seniors. (11/2017-6336).
26. R Aggarwal, SE Chick, F Simon, 2016, PatientsLikeMe: Using Social Network Health Data to Improve Patient Care. (01/2017-6248).
25. R Aggarwal, SE Chick, 2016, Disrupting Dengue with an Emerging Markets Launch Strategy. (06/2016-6212)

24. Rose KJ, SE Chick, 2016, Mobile Health in Diabetes: mySugr's Monster Approach. (06/2017-6204). Also available in Japanese.
23. R Aggarwal, SE Chick, 2015, Reorganizing Health Care Delivery through a Value-Based Approach. (11/2015-6120)
22. R Aggarwal, SE Chick, 2015, Double Vision: Making Eye Care Accessible through Cross-Subsidization. (04/2015-6124)
21. A Al Ani, SE Chick, 2014, Lean Improvement Project at Sultan Bin Abdulaziz Humanitarian City. (12/2014-6105)
20. R Aggarwal, V Öhman, SE Chick, 2013, Laastari Retail Health Clinic Model. (08/2013-5997)
19. R Aggarwal, SE Chick, 2013, Finland's Public Sector Primary Care Model. (06/2013-5978)
18. R Aggarwal, SE Chick, 2013, Laastari: Building a Retail Health Clinic Chain. (04/2014-5491)
17. Samir Bahrawi, A Emara, Sahar Bahrawi, SE Chick, 2012, SABA Medical's Business Model for Polyclinics in Jeddah. (10/2012-5915)
16. Balze P, SE Chick, 2012. Sheikh Khalifa Medical City: Initiative to Improve Diabetes Screening within the expatriate community of Abu Dhabi. (INSEAD 12/2012-5783, internal use)
15. Khayat N, SE Chick, 2012. Nursing Development at the Om Habibeh Foundation in Aswan, Egypt. (INSEAD 04/2012-5877, internal use)
14. De Clara L, SE Chick, 2011. Turnaround at L'Oréal's GreenVillage Plant. (INSEAD 11/2011-5478, internal use)
13. Rose KJ, SE Chick, 2011. Team Type 1: Engaging People with Diabetes. (01/2012-5825)
12. Hourani H, SE Chick, 2010. Five Personal Perspectives on the Diabetes Crisis in the Gulf States of the Middle East. (06/2010-5709)
11. Hourani H, SE Chick, 2010. Imperial College London Diabetes Center in Abu Dhabi (ICLDC). (02/2010-5676)
10. Hourani H, SE Chick, 2010. Imperial College London Diabetes Centre in Abu Dhabi (ICLDC): (B) The broader healthcare context in the UAE. (02/2010-5676)
9. Hourani H, SE Chick, 2009. St. George Hospital University Medical Center in Beirut. (11/2009-5632)
8. Jokela P, D Nahmias, SE Chick, 2009. Deep Breeze Brings an Innovative Medical Device to Market. (07/2009-5620, internal use)
7. Andersen M, R Chaparro Gazzo, T Nautin, D Jacquemont, JB Escoufier, J Ward, SE Chick, 2009. NexusBank's Journey Towards Lean Management: Applying the Toyota Production System in Financial Services, (06/2009-5616, internal use)
6. Hourani H, SE Chick, 2009. Hotel Dieu de France: The Deployment and Improvement of a Disaster Relief Plan. (11/2009-5606). With Teaching Note (11/2009-TN-5606)
5. Van der Heyden L, M Pich, SE Chick, 2005. Process Control at Compaq® Computer Corp. (A): Understanding the Build-to-Order Decision. with Teaching Note (for A and B cases). (10/2005-5317)
4. Chick SE, M Pich, 2004. Process Control at Compaq® Computer Corp. (B): Computer Simulation - ProModel. (INSEAD)
3. Tébooul J, SE Chick, 2004. Roche Diagnostic Systems (A). 04/2004-4680. Revision of case written by Molloud, et al. in 1997.
2. Chick SE, 2003. Manzana Insurance: Fruitvale Branch (B). With ProModel computer simulation models. (INSEAD use)
1. Terwiesch C, CH Loch, SE Chick, 2002, Pumping Iron at Cliffs and Associates Teaching Note, (06/2002-5041)

Articles in Published Conference Proceedings: (Speaker in *italics*.)

45. A. Alban, S.E. Chick, S. Zoumpoulis, 2021, Expected value of information methods for contextual ranking and selection: Clinical trials and simulation optimization, S. Kim, B. Feng, K. Smith, S. Masoud, Z. Zheng, C. Szabo, and M. Loper, eds., Proc. 2021 Winter Simulation Conference, *to appear*, IEEE.

44. A. Alban, S.E. Chick, Oleksandra Lvova, Danielle Sent, 2020, A simulation model to evaluate the patient flow in an intensive care unit under different levels of specialization, invited submission to K.-H. Bae, B. Feng, S. Kim, S. Lazarova-Molnar, Z. Zheng, T. Roeder, and R. Thiesing, eds., Proc. 2020 Winter Simulation Conference, p. 922–933, IEEE.<http://ssrn.com/abstract=3565826>
43. S.E. Chick, N. Gans, O. Yapar, 2019. Sequential, Value-Based Designs for Certain Clinical Trials with Multiple Arms Having Correlated Rewards. In N. Mustafee, K.-H.G. Bae, S. Lazarova-Molnar, M. Rabe, C. Szabo, P. Haas, and Y.-J. Son, eds., Proc. Winter Simulation Conference, p. 1032–1043, IEEE.
42. Karakike E., A. Alban, E.J. Giamarellos-Bourboulis, S.E. Chick, 2019, Exploring Alternative Trial Designs for Pragmatic Clinical Studies: A Bayesian decision-theoretic model applied on a real ongoing one-stage trial. Intensive Care International Congress (ISICEM) Mar 2019. <https://www.intensive.org/admin/upload/abstract/1079190603/A518.pdf>, Abstract appeared in *Critical Care*.
41. A. Alban, S.E. Chick, M. Forster, 2018. Extending a Bayesian Decision-Theoretic Approach to Value-Based Sequential Clinical Trial Design. In M Rabe, AA Juan, N Mustafee, A Skoogh, S Jain, B Johansson, eds., Proc. Winter Simulation Conference, 2459–2470, IEEE.
40. M.D. Stevenson, J. Oakley, S.E. Chick, L. Uttley, C. Carroll, 2018. Simulating the Cost-Effectiveness of Strategies to Reduce the Probability of Surgically Transmitted Creutzfeldt-Jakob Disease. In M Rabe, AA Juan, N Mustafee, A Skoogh, S Jain, B Johansson, eds., Proc. Winter Simulation Conference, 4119–4120, IEEE.
39. C Kaligotla, E Yücesan, SE Chick, 2016, The Impact of Broadcasting on the Spread of Opinions in Social Media Conversations, In TMK Roeder, PI Frazier, R Szechtman, E Zhou, T Huschka, and SE Chick, eds., Proc. Winter Simulation Conference, 3476–3487, IEEE.
38. SE Chick, M Forster, P Pertile, 2015, Optimal Sequential Sampling with Delayed Observations and Unknown Variance, In L Yilmaz, WKV Chan, I Moon, TMK Roeder, C Macal, MD Rossetti, eds., Proc. Winter Simulation Conference, 3789–3800, IEEE.
37. C Kaligotla, E Yücesan, SE Chick, 2015, Agent Based Model of Spread of Competing Rumors through Online Interactions on Social Media, In L Yilmaz, WKV Chan, I Moon, TMK Roeder, C Macal, MD Rossetti, eds., Proc. Winter Simulation Conference, 3985–3996, IEEE.
36. Aral K, SE Chick, A Grabosch, 2014, Primary Preventive Care Model for Type 2 Diabetes: Input Calibration with Response Data, In A. Tolk, S.D. Diallo, I.O. Ryzhov, L. Yilmaz, S. Buckley, J.A. Miller, eds., Proc. Winter Simulation Conference, 1399–1410, IEEE.
35. S.J.E. Taylor, S. Brailsford, S.E. Chick, P. L’Ecuyer, C.M. Macal, B.L. Nelson, 2013, Modeling and Simulation Grand Challenges: An OR/MS Perspective In R. Pasupathy, S.-H. Kim, A. Tolk, R. Hill, M.E. Kuhl, eds., Proc. Winter Simulation Conference, 1269–1282, IEEE.
34. P. Frazier, Jing Xie, S.E. Chick, 2011, Value of Information Methods for Pairwise Sampling with Correlations. In S. Jain, R.R. Creasey, J. Himmelspach, K.P. White and M. Fu, eds., Proc. Winter Simulation Conference, 3979–3991, IEEE.
33. A. Arlotto, S.E. Chick, N. Gans, 2010, Optimal Employee Retention When Inferring Unknown Learning Curves. In B. Johansson, S. Jain, J. Montoya-Torres, J. Hugan, and E. Yücesan, eds., Proc. Winter Simulation Conference, 1178–1188, IEEE.
32. S. Soorapanth, S.E. Chick, 2010, Cost-Utility Analysis of Behavioral Interventions for HIV-Infected Persons to Reduce HIV Transmission in the USA. In B. Johansson, S. Jain, J. Montoya-Torres, J. Hugan, and E. Yücesan, eds., Proc. Winter Simulation Conference, 2433–2443, IEEE.
31. S.E. Chick, P. Frazier, 2009, The Conjunction of the Knowledge Gradient and the Economic Approach to Simulation Selection. In M. D. Rossetti, R. R. Hill, B. Johansson, A. Dunkin, and R. G. Ingalls, eds., Proc. Winter Simulation Conference, p. 528–539, IEEE.
30. S.E. Chick, N. Gans, 2008, Update on Economic Approach to Simulation Selection Problems. In S.J. Mason, R.R. Hill, L. Moench, O. Rose, eds., Proc. Winter Simulation Conference, p. 297–304, IEEE.
29. S.E. Chick, H. Mamani, D. Simchi-Levi, 2008, Influenza Vaccine Supply Chain with Multiple Agencies, 2008 *Manufacturing & Service Operations Management* Conference.

28. S.E. Chick, J. Branke, C. Schmidt, 2007. New Greedy Myopic and Existing Asymptotic Sequential Selection Procedures: Preliminary Empirical Results. In S.G. Henderson, B. Biller, M.-H. Hsieh, J. Shortle, J.D. Tew, and R.R. Barton, eds., Proc. Winter Simulation Conference, p. 289–296, IEEE.
27. Chick, S.E., N. Gans, 2006. Simulation Selection Problems: Overview of an Economic Analysis. In L.F. Perrone, F.P. Wieland, J. Liu, B.G. Lawson, D.M. Nicol, and R.M. Fujimoto, eds., Proc. Winter Simulation Conference, p. 279–286, IEEE. (cf. 23 below).
26. Chick, S.E., 2006. Bayesian Ideas for Discrete Event Simulation: Why, What and How. In L.F. Perrone, F.P. Wieland, J. Liu, B.G. Lawson, D.M. Nicol, and R.M. Fujimoto, eds., Proc. Winter Simulation Conference, p. 96–106, IEEE. (update of 21 below).
25. S.E. Chick, H. Mamani, D. Simchi-Levi, 2006, Supply Chain Coordination and Influenza Vaccination, 2006 *Manufacturing & Service Operations Management* Conference.
24. C. Schmidt, J. Branke, S. Chick, 2006, Integrating Techniques from Statistical Ranking into Evolutionary Algorithms. In F. Rothlauf et al. (eds.), *EvoWorkshops 2006*, LNCS 3907, Applications of Evolutionary Computation, p. 752–763, Springer-Verlag.
23. S.E. Chick, N. Gans, 2006, Overview of an Economic Analysis of Simulation Selection Problems, In: Garnett J, Brailsford S, Robinson S, Taylor S (eds). Proc. of the Operational Research Society Simulation Workshop 2006 (SW06). Operational Research Society, Birmingham, UK. p. 77–84.
22. J. Branke, S.E. Chick, C. Schmidt, 2005. New Developments in Ranking and Selection: An Empirical Comparison of the Three Main Approaches. In M.E. Kuhl, N.M. Steiger, F.B. Armstrong, and J.A. Joines, eds., Proc. Winter Simulation Conference, p. 708–717, IEEE.
21. Chick, S.E., 2004. Bayesian Methods for Discrete Event Simulation. In R. Ingalls, M. Rossetti, J. Smith, and B. Peters, eds., Proc. Winter Simulation Conference, p. 89–100, IEEE.
20. Chick, S.E., 2003, Expected Opportunity Cost Guarantees and Indifference-Zone Selection Procedures, In S.E. Chick, P.J. Sánchez, D. Ferrin, D.J. Morrice, eds., Proc. Winter Simulation Conference, p. 465–473, IEEE.
19. Barton, R.R., Cheng, R.C.H, Chick, S.E., Henderson, S.G., Law, A.M., Leemis, L.M., Schmeiser, B.W., Schruben, L.W., Wilson, J.R., 2002. Panel on Current Issues in Simulation Input Modeling, In E. Yücesan, C.-H. Chen, J.L. Snowdon, J.M. Charnes, eds., Proc. Winter Simulation Conference. p. 353–369. IEEE.
18. Ng, S.-H., Chick, S.E., 2002. Joint Criterion for Factor Identification and Parameter Estimation, In E. Yücesan, C.-H. Chen, J.L. Snowdon, J.M. Charnes, eds., Proc. Winter Simulation Conference. p. 400–406. IEEE.
17. Ng, S.-H., Chick, S.E., 2001. Reducing Input Parameter Uncertainty For Simulations, In B.A. Peters, J. Smith, M. Rohrer, D. Madeiros, eds., Proc. Winter Simulation Conference. p. 364–371. IEEE.
16. Soorapanth, S., Chick, S.E., Koopman, J.S., 2001, Simulation of Stochastic Infection Transmission Models Designed to Inform Water Treatment Decisions, In N. Giambiasi, C. Frydman, eds., Proc. European Simulation Symposium. p. 517–521. Society for Computer Simulation.
15. Chick, S.E., 2000. Bayesian Methods For Simulation, In J.A. Joines, R. Barton, P. Fishwick, K. Kang, eds., Proc. Winter Simulation Conference. p. 109–118. IEEE.
14. Chick, S.E., Inoue, K., 2000. New Results on Procedures that Select the Best System Using CRN, In J.A. Joines, R. Barton, P. Fishwick, K. Kang, eds., Proc. Winter Simulation Conference. p. 554–561. IEEE.
13. Zhong, W., Maier-Sperdelozzi, V., Bratzel, A., Yang, S., Chick, S.E., Hu, S.J., 2000, Performance Analysis of Machining Systems With Different Configurations, Proc. Japan USA Symposium on Flexible Manufacturing, Ann Arbor, Michigan.
12. Barth-Jones, D.C., Chick, S.E., Adams, A.L., Koopman, J.S., 2000. HIV vaccine trial design for measuring vaccine effects on infectiousness and the basic reproduction number, Proc. 13th International AIDS Conference, Durban, South Africa, July 9-14, 2000, Bologna, Italy: Monduzzi Editore, p. 693–697.
11. S. Chick. 1999. Steps to Implement Bayesian Input Distribution Selection, In P.A. Farrington, H.B. Nemphard, D. Sturrock, J. Evans, eds., Proc. Winter Simulation Conference. p. 317–324. IEEE.

10. S. Chick, *Inoue, K.*, 1999. A Decision-Theoretic Approach to Screening and Selection with Common Random Numbers, In P.A. Farrington, H.B. Nembhard, D. Sturrock, J. Evans, eds., *Proc. Winter Simulation Conference*. p. 603–610. IEEE.
9. Adams, A.L., *Chick, S.E.*, Koopman, J.S., Yu, P., 1999. GERMS: An Epidemiologic Simulation Tool For Studying Geographic and Social Effects on Infection Transmission, In P.A. Farrington, H.B. Nembhard, D. Sturrock, J. Evans, eds., *Proc. Winter Simulation Conference*. p. 1549–1556. IEEE.
8. *Koopman, J. S.*, Chick, S. E., Becker, M. P., Wilson, M. L., 1998, Partner Based Surveillance To Direct Control Toward Populations Where Undetected Infections Are Spreading, 12th World AIDS Conference Proceedings. Monduzzi Editore S.p.A. Bologna, Italy.
7. *Barth-Jones, D.C.*, Adams, A., Lange, K., Chick, S.E., Koopman, J.S., 1998, Retrospective Partner Trials (RPT) HIV vaccine study design for measurement of vaccine effects, *Proc. 12th World AIDS Conference Proceedings, Prevention and Epidemiology*. Monduzzi Editore S.p.A. Bologna, Italy. p. 285–289.
6. *Chick, S.E.*, Inoue, K., 1998, Sequential Allocations That Reduce Risk For Multiple Comparisons, In D. J. Medeiros, E. J. Watson, M. Manivannan, J. Carson, eds., *Proc. Winter Simulation Conference*. p. 669–676. IEEE.
5. *Inoue, K.*, Chick, S.E., 1998, Comparison of Bayesian and Frequentist Assessments of Uncertainty for Selecting the Best System, In D. J. Medeiros, E. J. Watson, M. Manivannan, J. Carson, eds., *Proc. Winter Simulation Conference*. p. 727–734. IEEE.
4. *Chick, S.E.*, 1997, Bayesian Analysis for Simulation Input and Output, In Andradottir, S., Healy, K., Withers, D., and Nelson, B., editors, *Proc. Winter Simulation Conference*, p. 253–260, IEEE.
3. *Chick, S.E.*, 1997, Selecting the Best System: A Decision-Theoretic Approach, In Andradottir, S., Healy, K., Withers, D., and Nelson, B., editors, *Proc. Winter Simulation Conference*, p. 326–333, IEEE.
2. Ahn, S., Chick, S.E., Mendel, M.B., 1994, Deriving Accelerated Lifetime Models From Engineering Curves with an Application to Tribology, *Proc. 40th Annual Technical Meeting and Exposition of the IES*.
1. Ahn, S., Chick, S.E., *Mendel, M.B.*, 1994, Deriving Probability Models for Stress Analysis, *Advances in Structural Reliability Methods*, ed. P.D. Spanos, p. 1–10, Springer-Verlag.

Other Presentations: (Speaker in *italics*.)

79. ‘Transforming Health Systems and a VR experience’, *R Aggarwal, S Chick*, INSEAD Business in Society Summit, 17 June 2023.
78. ‘Recent Advances in Value-based Adaptive Clinical Trials’, Alban, *Chick*, Zoumpoulis, INFORMS Healthcare Conference, July 26-28, 2023, Toronto, Canada.
77. ‘Conditional Approval and Value-Based Pricing for New Health Technologies’, *Yapar, Chick, Gans*, INFORMS Healthcare Conference, July 26-28, 2023, Toronto, Canada.
76. ‘Sequential Learning and Value-based Trials’, Workshop on Information and Learning in Decisions and Operations, Jul 20-21, 2023, Fontainebleau, France.
75. ‘Value-Adaptive Sequential Clinical Trials for Precision Medicine with Predictive and Prognostic Covariates’, INFORMS Applied Probability Conference, Nancy, France, June 28-30, 2023.
74. Some recent invited seminar presentations: HEC Paris (May 2022), Cleveland Clinics Abu Dhabi (Mar 2022), Penn State University (Feb 2022), Naval Postgraduate School (Apr 2021, Distinguished Operations Research Lecture), SMU Cox School of Business (Apr 2021); Univ Michigan, Ross Business School (Jan 2021); MIT Cambridge Sloan School of Management (Dec 2019); University of Sheffield (Dec 2019); Imperial College London (Jun 2019); London Business School (Jun 2019); University of Lausanne (May 2019); University College of London Business School (Sep 2018); University of Maryland RH Smith School of Business (Dec 2016); Stanford Graduate School of Business (Oct 2016); l’Institut Henri Poincaré (Oct 2016); University of Chicago Booth Business School (2015); INSEAD Singapore (2015); Yale School of Management (2015); Bocconi University de Finetti Lecture (2015).

73. Blood Transcriptomic Endotypes and the Response to Treatment Modalities in Sepsis: A Prospective Cohort Study, 2022, *Niels van Mourik*, Andres Alban, Fabrice Uhel, Alexander PJ, Vlaar, Spyros I Zoumpoulis, Janneke Horn, Marcus J Schultz, Marcella CA Müller, Olaf L Cremer, Marc J Bonten, W Joost Wiersinga, Tom van der Poll, Stephen E Chick, Brendon P Scicluna, Lonneke A van Vught; MARS consortium, European Society of Intensive Care Medicine (ESICM), Oct 22-26, 2022, Paris. Winner, International Sepsis Forum (ISF) Abstract Award.
72. *Laura Flight*, Alan Brennan, Stephen E Chick, Martin Forster, Steven Julious, Puvan Tharmanathan, 2022, Delivering Value for Money in Clinical Trials: Value-Adaptive Designs for Efficient Delivery of Publicly Funded Trials, 6th International Clinical Trials Methodology Conference (ICTMC), 3-6 oct 2022, <https://ictmc.org/programme/>, Harrogate, UK.
71. 'Learning personalized treatment strategies with predictive and prognostic covariates' by Andres Alban, Stephen Chick, *Spyros Zoumpoulis*, at INFORMS MSOM Conference (Jun 2022).
70. 'Conditional Approval vs. Discount Schemes for New Medical Treatments' by *Ozge Yapar*, Stephen Chick, Noah Gans, at POMS Annual Conference (Apr 21-25, 2022).
69. *Martin Forster*, *Laura Flight*, Alan Brennan, Stephen E Chick, Belen Corbacho, Steven Julious, Ada Keding, Sarah Ronaldson, Puvan Tharmanathan, Charlie Welch, 2021, Using Bayesian decision theory in sequential clinical trials: results from the EcoNomics of Adaptive Clinical Trials (ENACT) project, Royal Statistical Society 2021 International Conference, 6-9 sept 2021, <https://app.oxfordabstracts.com/events/1880/program-app/program>, Manchester, UK.
68. 'A Value of Information Approach to Designing Sequential Clinical Trials for Precision Medicine' by *Andres Alban*, Stephen Chick, Spyros Zoumpoulis, at INFORMS Healthcare (Jul 2021).
67. 'Conditional Approval vs. Discount Schemes for New Medical Treatments' by *Ozge Yapar*, Stephen Chick, Noah Gans, at INFORMS Healthcare (Jul 2021).
66. 'Did England's Policies on Sepsis and Antibiotic Resistance have Their Intended Effects?' by *Christos Oikonomou*, Stephen Chick, Spyros Zoumpoulis, et al. at INFORMS Healthcare (Jul 2021).
65. Cost-effective clinical trial design: application of a Bayesian sequential stopping rule to the ProFHER pragmatic trial. *M Forster*, S Brealey, S.E. Chick, A Keding, B Corbacho, A Alban, P Pertile, A Rangan. 50th Scientific Meeting of the Italian Statistical Society. June 2020. <http://meetings3.sis-statistica.org/index.php/sis2020/50>.
64. A Value of Information Approach to Designing Sequential Clinical Trials For Personalized Health Care. *Andres Alban*, Stephen E. Chick, Spyros Zoumpoulis, INSEAD, Fontainebleau, France. INFORMS Annual Conference, 2019, Seattle, Washington, USA.
63. Risk-sharing Agreements For New Medical Treatments. *Ozge Yapar*, Stephen E. Chick, Noah Gans, INFORMS Annual Conference, 2019, Seattle, Washington, USA.
62. Did England's Policies On Sepsis and Antibiotic Resistance Have Their Intended Effects? Stephen E. Chick, Stephen Harris, Christos Oikonomou, Edward Palmer, Mervyn Singer, *Spyros Zoumpoulis*, INFORMS Annual Conference, 2019, Seattle, Washington, USA.
61. Outcomes-based Reimbursement Policies For Chronic Care Pathways. *Sasa Zorc*, Stephen E. Chick, Sameer Hasija, INFORMS Annual Conference, 2019, Seattle, Washington, USA.
60. 'Cost-Effective Clinical Trial Design: Application of a Bayesian Sequential Stopping Rule to the ProFHER Pragmatic Trial (Oct 2019), by *Martin Forster*, Stephen Brealey, Stephen Chick, Ada Keding, Belen Corbacho, Andres Alban, Paolo Pertile, Amar Rangan, 5th International Clinical Trials Methodology Conference (ICTMC 2019), Brighton. <https://ictmc2019.com/>
59. 'Personalized Fluid Management in Sepsis Using Transcriptomic Endotypes' by *Andres Alban*, Stephen Chick, Spyros Zoumpoulis, et al. at INFORMS Healthcare (Jul 2019).
58. 'Risk Sharing for New Medical Treatments' by *Ozge Yapar*, Stephen Chick, Noah Gans at INFORMS Healthcare (Jul 2019); at INFORMS Annual Conference (Nov 2018).
57. 'Did England's Policies on Sepsis and Antibiotic Resistance have Their Intended Effects?' by *Christos Oikonomou*, Stephen Chick, Spyros Zoumpoulis, et al. at INFORMS Healthcare (Jul 2019).

56. 'Bayesian Sequential Learning for Clinical Trials of Multiple Correlated Medical Interventions' by *Ozge Yapar*, Stephen Chick, Noah Gans, at POMS (May 2019), INFORMS Annual Conference (Nov 2018).
55. 'Value-based clinical trial design to account for features of pragmatic trials', by *Andres Alban*, Stephen Chick, Martin Forster, at POMS (May 2019), INFORMS Annual Conference (Nov 2018).
54. 'Outcomes-based reimbursement policies for chronic care pathways' by *Sasa Zorc*, Stephen Chick, Sameer Hasija, at POMS (May 2019), INFORMS MSOM Conference (Jun 2017, msom2017.kenan-flagler.unc.edu/), and INFORMS Healthcare Conference (Jul 2017, meetings2.informs.org/wordpress/healthcare2017/).
53. 'Bayesian Bandits for Sequential Clinical Trials of Multiple Technologies' by *Ozge Yapar*, Stephen Chick, Noah Gans, at INFORMS MSOM Conference (Jun 2017, msom2017.kenan-flagler.unc.edu/), and INFORMS Healthcare Conference (Jul 2017, meetings2.informs.org/wordpress/healthcare2017/). Presented by *S Chick* at IMA and OR Society Conference on Mathematics of Operational Research, ima.org.uk/1365/ima-society-conference-mathematics-operational-research/
52. S Chick, P Pertile, *M Forster*, 'Sequential Clinical Trial Design when Outcomes Arrive with Delay: a Bayes Decision-Theoretic Approach', Royal Statistical Society 2014 Conference, Sept 1-4, 2014, Sheffield, UK.
51. 'Back to Basics: Improve Service and Reduce Costs the Scientific Way - Through Observation, Measurement and Process Evaluation from the Patient's Point Of View', Hospital Management Asia Conference, Bangkok, Sept 12-13, 2013, hospitalmanagementasia.com/ (accessed Jan 2014). Moderated session 'Ensuring Quality Beyond Accreditation - what hospitals need to do to stay one step ahead'.
50. 'Challenges and opportunities for industrial excellence in Europe', 'Industrial Excellence Award 2013' Conference, Leipzig, Sept 23-24, 2013, www.bestefabrik-konferenz.de/ (accessed June 2013).
49. 'Business Excellence: lessons from the Mittelstand', presentation and panel session, INSEAD Global Business Leaders Conference, June 28, 2013, Paris, www.insead.edu/events/global-business-leaders-conference-paris-2013/
48. Laudation for French winners of Best Factory award, Oct 23-24, 2012 'Die Beste Fabrik 2012' Conference www.bestefabrik-konferenz.de/ (accessed June 2013).
47. 'Optimizing Portfolios of Interventions for Type 2 Diabetes Prevention and Management' for Abu Dhabi Health Authority, at INSEAD Abu Dhabi campus, 15 april 2013.
46. *Chick, S.*, Some Challenges with Input Uncertainty, workshop on Accelerating Industrial Productivity via Deterministic Computer Experiments & Stochastic Simulation, Isaac Newton Institute, Cambridge UK, 8 Sept 2011.
45. *Chick, S., JPC Kleijnen, S. Sanchez*, Panel: Input uncertainty and experimental robustness, workshop on Accelerating Industrial Productivity via Deterministic Computer Experiments & Stochastic Simulation, Isaac Newton Institute, Cambridge UK, 8 Sept 2011.
44. *Aral, A., S. Chick, A. Grabosch*, Optimal Preventive Care Policies on Type 2 Diabetes Mellitus, INFORMS Healthcare, Montréal, July 2011.
43. *Glaa, B., S. Chick*, A Model for Covering In-hospital Cardiac Arrest, INFORMS Healthcare, Montréal, July 2011.
42. *Arlotto, A., S. Chick, N. Gans*, Optimal Hiring and Retention Policies for Workers with Heterogeneous Learning, INFORMS Fall Conference, Oct 2010; M&SOM Conference, July 2011.
41. *Arlotto, A., S. Chick, N. Gans*, Hiring and Retention of Heterogeneous Workers, 2009 INFORMS Applied Probability Conference, Cornell, July 12-15, 2009; Also at INFORMS Fall Conference, Oct 2009.
40. 2008/2009: "An Economic Analysis of Simulation Selection Problems", Lancaster University (1/10/08), Princeton University Dept. Operations Research and Financial Engineering (5/12/08);
"Supply Chain Coordination and Influenza Vaccination" at London Business School (26/09/08), University College of London CORU (29/09/08), Warwick University Business School (3/10/08), Wharton School (07/01/09);
"Industrial Excellence Award and Healthcare Delivery" at Henley-on-Thames UK NHS Cohort 2 Reunion Learning Set (24/09/08); INSEAD Abu Dhabi Centre HMI Seminar (10/11/08).
39. *Chick, S.E.*, (coauthor N. Gans), Should I bother to simulate? An economic approach to discrete optimization via simulation, INFORMS Simulation Society Research Workshop, July 5-7, 2007, Fontainebleau, France. Related presentation given: INFORMS Applied Probability Conference (07/2007) Eindhoven, Holland.

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38. *Chick, S.E.*, (coauthors D. Simchi-Levi, H. Mamani) Supply chain coordination and influenza vaccination, May 10, 2007, Univ. Southampton, CORMSIS, UK.
 37. *Stevenson, M.*, Oakley, J., Chick, S.E., Chalkidou, K., Are single use instruments cost-effective in stopping iatrogenic vCJD transmission?, October 15-18, 2006, Annual Meeting of the Society for Medical Decision Making (with abstract).
 36. *Chick, S.E.*, Noah Gans, An Economic Analysis of Simulation Selection Problems, 28 Oct 2005. INSEAD Technology and Operations Management Seminar.
 35. *Chick, S.E.*, Noah Gans, A Bandit Approach to the Economics of System Selection with Simulation, 15 Sep 2005. MIT, Boston (Operations Research Center Seminar Series).
 34. Invited Commemorative Address: Observations on Industrial Excellence. 16 Feb 2005. Karlsruhe University, Dept. Economics and Business Engineering, for Carl-Adam-Petri-Prize Ceremony.
 33. *Chick, S.E.*, Focus Fortnight on Patient Simulation Modelling in Health Care: How Sensitive are My Conclusions to Model Structure? 12 Oct 2004. Univ. Sheffield, UK, CHEBS (Center for Health Economics and Bayesian Statistics).
 32. *Chick, S.E.*, How sensitive are my conclusions to model structure? Insights from health care simulations. 8 Oct 2004. Warwick Business School, Operational Research & Systems Group.
 31. *Evrin-Didem Gunes*, Stephen Chick, L. Van Wassenhove, A Model of Screening for a Disease: Does Competition Improve Screening Services?, INFORMS Denver, Oct 2004.
 30. *Loch, C.*, *Chick, S.E.* Partnering and Adding Services in the Future of Manufacturing, EUROMA 2004, Industry/Academic Workshop on Industrial Excellence, June 30, 2004. With O. Kerbage (CEO, Imaje), H. Brumme (former Manager, HP Herrenberg plant).
 29. *Chick, S.E.* Diffusion approximations as an intermediate between ODE models and stochastic Monte Carlo models: Implications for simulation efficiency and for parameter estimation. Model Transition Sensitivity Analysis Workshop. Hosted by BioMedware. Ann Arbor, Michigan. July 24-25, 2003.
 28. *Güneş, E.*, Chick, S.E., Breast Cancer Screening: Trade-Offs in Planning and Provision of the Service. EuroINFORMS Joint International Meeting, Istanbul, July 2003.
 27. *Soorapanth, S.*, Chick, S.E., Koopman, J.S., Dynamics of Microbial Risk and Drinking Water Treatment Policy, Toxicology and Risk Assessment Conference. April 28-May 1, 2003.
 26. *Chick, S.E.*, 2002, Public Policy For Drinking Water Treatment: Surprising Results from an Innovative Risk Assessment, INSEAD, CMER Brown Bag Lunch.
 25. *Chick, S.E.*, 2001, Uncertainty in Service and Production System Models, Univ. Michigan, Ann Arbor, Business School, Hosmer Lecture.
 24. *Koopman, J.S.*, Chick, S.E., Jacquez, G., 2000, Analyzing Sensitivity To Model Form Assumptions Of Infection Transmission System Models, to American College of Epidemiology, September. Abstract: *Annals of Epidemiology*. 10(7):472.
 23. *Chick, S.E.*, 2000, Assessing and Reducing Uncertainty about Stochastic Models of Production and Service Systems, INSEAD, Technology and Operations Management Area, Fontainebleau, France.
 22. *Chick, S.E.*, Soorapanth, S., Koopman, J.S., Microbial Risk Assessments for Infection Transmission Systems, 2000, Toxicology and Risk Assessment Approaches for the 21st Century Conference, sponsored by US EPA/NCEA, April 10-13, Kings Island, Ohio.
 21. *Koopman, J.S.*, *Riolo, C.S.*, Chick, S.E., 1999, Analyzing Human Interaction Patterns in Infection Models and in Phylogenetic Data, Univ. Michigan-Santa Fe Institute Fall Complexity Meeting, Ann Arbor, Michigan, November.
 20. *Chick, S.E.*, Koopman, J.S., Barth-Jones, D.C., Adams, A.L., Becker, M., Wilson, M.L., 1999, Stochastic Models of Individuals and Infection for Analysis and Control of Sexually Transmitted Diseases, INFORMS Applied Probability Conf., Ulm, Germany, July.

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19. *Koopman, J.S., Chick, S.E.*, 1999, Waterborne Infection And Transmission System Dynamics, U.S. Environmental Protection Agency (EPA), Workshop on Modeling Risk of Waterborne Pathogen Exposure, Disease Outbreak, Cincinnati, Ohio, July.
 18. *Barth-Jones, D.C., Koopman, J.S., Chick, S.E., Adams, A.L.*, 1999, Statistical power for the Retrospective Partner Trials (RPT) HIV vaccine study design, Thirteenth Meeting of the International Society for STD Research, Denver, July. Abstract # 228, p. 137.
 17. *Chick, S.E.*, 1999, Steps to Implement Bayesian Input Distribution Selection for Simulation, Georgia Tech, Dept. Industrial and Systems Engineering, Atlanta, Georgia.
 16. *Chick, S.E., Inoue, K.*, 1999, How to Allocate Resources to Select the 'Best' Alternative, Univ. Michigan Decision Consortium, Spring Meeting, May.
 15. *Chick, S.E.*, 1999, Multiple Comparisons with Common Random Numbers, INFORMS Joint National Meeting, Cincinnati, May.
 14. *Chick, S.E., Olsen, T., Stauffer, K., White III, C.C., Sethuraman, K., Stecke, K.E.*, 1998, A Decision Support Model To Select Appropriate Reconfigurable or Other Machining Systems That Considers Buyer-Supplier Relationships, Proc. 1998 Japan-USA Symposium on Flexible Automation, Ohtsu, Japan, July.
 13. *Chick, S.E., Hashimoto, M., Inoue, K.*, 1998, Efficient Sampling Allocations for Multiple Selection from Gaussian Populations, With Linear Loss, Sixth Valencia International Meeting on Bayesian Statistics, June, poster presentation.
 12. *Chick, S.E.*, 1998, A Decision-Theoretic Approach for Selecting the Best System, INSEAD, Technology Management Area, Fontainebleau, France.
 11. *Chick, S.E.*, 1998, Sequential Budget Allocation for Selecting the Best Simulated System with Gaussian Output, INFORMS Joint National Meeting, Montreal, May.
 10. *Chick, S.E.*, 1997, Bayesian Model Averaging for Discrete-Event Simulation, INFORMS Joint National Meeting, San Diego, May.
 9. *Chick, S.E.*, 1997, Input Distribution Selection for Stochastic Simulations, Univ. Michigan, Dept. Statistics Seminar, Winter Semester. Also at: Production Modeling Corporation, Dearborn, MI.
 8. *Chick, S.E.*, 1996, Operational Statistical Lifetime Models for Engineering Design and Accelerated Lifetime Testing, Joint Research Conference on Statistics in Quality, Industry, and Technology, NIST, Gaithersburg, MD, May 29.
 7. *Chick, S.E.*, 1995, Design and Maintenance Decisions with Engineering-Based Statistical Models, Univ. of Michigan, Dept. Industrial and Operations Engineering.
 6. *Chick, S.E.*, 1995, Flood Protection Activities in Holland Today, Univ. California, Berkeley, Dept. of Civil Engineering.
 5. *Chick, S.E.*, 1995, Frequency of Extreme River Levels, Technical Univ. Delft, Holland, Dept. of Statistics, Stochastics, and Operations Research. Also at: Univ. California, Berkeley, Dept. Civil Engineering, Dec. 1994.
 4. *Chick, S.E.*, 1992, Stochastic Modeling for Asynchronous Transfer Mode (ATM) Network Reliability, ORSA-TIMS Joint National Meeting, San Francisco, CA.
 3. *Chick, S.E.*, 1992, Modeling ATM Output Buffers, UC Berkeley College of Engineering Industrial Liason Program, Berkeley, CA, March.
 2. *Chick, S.E., Stevens, P.*, 1987, Engineering Approach to Simulation, Society of Manufacturing Engineers (SME) Simulation in Manufacturing Conference, Southfield, MI.
 1. *Chick, S.E.*, 1985, Don't Intimidate Your Computer, International Intergraph User's Group, San Francisco, CA.

Other Works:

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4. Sample seminars/webinars. Healthcare Data and Point-of-Care Innovation: Masterclass, with Swiss Health Alumni Network Basel 30 June 2022; With Digital@INSEAD: Harnessing Data Intelligence for Medical Diagnostics: The Case of Unilabs Portugal (2021), with R Aggarwal, and Unilabs Portugal's CEO L Menezes and Data Intelligence Director JP Almeida; With VoiceOfHealthcare.org: Global Syncup to Combat Epidemic (2020); With INSEAD Lifelong Learning Risk assessment: Lessons for today from past outbreaks (2020),
 3. INSEAD Knowledge pieces on scaling innovation in genomics and precision medicine (2023), supply side of Covid-19 patient management in hospitals (2020), risk models for supporting communicable disease control decisions (2020), collaboration for global health (2020), scaling healthcare in emerging markets (2017) novel clinical trial designs (2017), sustainable innovation through big data (2015), power of simplicity in industrial excellence (2015), healthcare innovation through collaboration (2013), improving pandemic preparedness (2013), customer driven innovation (2013), industrial excellence (2012), etc.
 2. Chick, S.E., 2001, 2002, 2003, *A Demonstration of BIBTEX Usage for WSC Papers*, (used in Winter Simulation Conference Author Kit several years running, adopted now by others).
 1. Chick, S.E., 1995, *Product and Process Design with Engineering-Based Statistical Models*, Ph.D. Thesis, U.C. Berkeley, Dept. of Industrial Engineering and Operations Research.

Quotes or Write-Ups in Press:

5. Value-based clinical trial work and quotes in Cash in on opportunity, in WorldPharma: Clinical Trials Insight, 2021, vol. 2, p. 23–25.
4. Dozens of coronavirus drugs are in development - what happens next? in Nature, 14 May 2020, by Heidi Ledford.
3. Annual article in a spring issue of L'Usine Nouvelle about the industrial excellence award. Many years there are quotes from me as co-director, 2004–2014.
2. Algorithm Improves Efficiency of Computer Simulation. *Advanced Manufacturing Technology*, John Wiley & Sons. (3 Nov 00).
1. Doctors: Vaccines could end AIDS, *Ann Arbor News*, 3 April 1998.

Patents:

1. Model Transition Sensitivity Analysis System and Method, with Prof. James S. Koopman and Dr. Geoffrey M. Jacques (President, BioMedware, Inc.), patent pending.

Direction of Research:

- Ph.D. Thesis Chair:
 - Andres Alban. Thesis Defended: July 2021. Current: Postdoc at Harvard Medical School/Mass General Hospital Institute for Technology Assessment.
 - Evrim D. Güneş. (co-chair with Z. Akşin). Thesis defended: August 2004. Current: Associate Professor, Operations Management, Koç University, Istanbul, Turkey.
 - Sada Soorapanth. Thesis defended: August 2002. Current: Tenured Associate Professor, Decision Sciences, San Francisco State Univ. College of Business, (after postdoc at CDC, Atlanta).
 - Szu Hui Ng. Thesis defended: June 2001. Current: Tenured Associate Professor of Industrial and Systems Engineering, National University of Singapore.
 - Koichiro Inoue. Thesis defended: April 2000. Next position: Supply chain management consultant for IT Frontier Corporation, Japan.
- Ph.D. Thesis Committee/Advisory:
 - Students from Karlsruhe (Christian Schmidt, graduated 2006), MIT (Hamed Mamani, graduated 2008), Princeton (Ilya Ryzhov, graduated 2011), Wharton (Alessandro Arlotto, graduated 2012; Ozge Yapar, graduated 2019), several from of INSEAD's POM or DS groups (Yaozhong Wu, Andreas Robotis, Anupam Agrawal, Elena Belavina, Javad Nasiry, Karca Aral, Simone Marinesi, Konstantinos Stouras, Chaitanya Kaligotla, Sasa

Zorc; current: Andres Alban, Christos Oikonomou), Ecole Centrale de Paris (Benjamin Legros, 2013), and Univ. Michigan's Industrial and Operations Engineering, Epidemiology, Statistics, Electrical Engineering and Computer Science departments.

- Research Scientist:
 - Andy Adams. Modeler and developer of simulations of infection transmission, surveillance, and control as part of project to engineer STD surveillance programs for the CDC.
- Masters Students:
 - Ann Bratzel. (MS '00) Thesis: Methods for Machine-Level Availability Modeling.
 - Peter Yu. (MS '99) Development of GUI and simulation tools for epidemiology analysis.

Classroom Teaching:

Exec Ed: Programme director for the Middle East Health Leadership Program (MEHLP, Abu Dhabi, 2008-2020), Strategic Innovation for Community Health (STICH, Nairobi, 2017-2018; was Innovators for Community Well-being, Abu Dhabi, 2011-2016), Innovating Health for Tomorrow (IHT, in Fontainebleau, 2013-2019) with partner Johnson & Johnson Foundation. For examples of impact, see www.insead.edu/healthcare-management-initiative/programmes

Exec Ed: Also directed programs for several corporate clients including Roche, Johnson and Johnson, AbbVie, Bayer Healthcare, GE Healthcare, Sanofi Russia.

Exec Ed: Teaching for multiple clients (beyond those mentioned above for program direction) in the areas of on Process Management, Service Operations, Innovation, Quality Management, Benchmarking and Operational Excellence. Clients include those in the health space (e.g., UK National Health Service, Changi General Hospital, Roche Pharmaceutical, SEHA, Sanofi-Pasteur, Grunenthal, Otsuka) and other sectors (e.g., manufacturing, energy, financial services, retail).

MBA: Creating Value in Health Elective created in 2015 about health care delivery: hospital turnaround, value in health, innovative models in care delivery.

MBA: Process and Operations Management Required MBA course that covers operations strategy, plant management, process design and analysis, quality management, inventory control.

MBA: Management of Services Elective course on service operations.

Ph.D.: Discrete Stochastic Processes Probability, Poisson process, renewal processes, discrete and continuous time Markov chains

Ph.D.: Methods and Applications for Inference Inference techniques (asymptotic normality, nonnormal approximations, EM algorithm, data augmentation, MCMC, related stochastic process results) and applications.

Ph.D.: Systems Simulation Stochastic process simulation, variance reduction, simulation optimization.

IOE 373: Introduction to Information Systems Required junior-level course: the software design process; event-driven, object-oriented programming; elementary relational database concepts; and requires term projects that use Visual Basic and Access.

IOE 474: Simulation Senior/masters-level introduction to discrete-event simulation, random variate generation, relevant statistics, GPSS/H, ProModel.

IOE 574: Simulation Analysis Masters/doctoral-level class created to cover foundational aspects of discrete-event stochastic simulation, as well as applications of simulation to statistical inference and optimization.

IOE 591: Operations Research Models in the Public Sector Masters level class that covers deterministic and stochastic OR models in public sector applications, including flood protection and the control of epidemics.

IOE 640: Mathematical modeling Doctoral-level mathematical modeling studio (with S. Pollock).

Continuing Medical Education:

- Sepsis 2017: from Pathogenesis to Treatment, Amsterdam, European Society of Clinical Microbiology and Infectious Diseases (ESCMID) Postgraduate Education Course, escmid.pulselinks.com/event/12619, 1–3 Jun 2017, 12 European CME credits.

Externally Funded Research:

- Consultant and advisor for: EcoNomics of Adaptive Clinical Trials (ENACT): Value-based Adaptive Clinical Trial Designs for Efficient Delivery of NIHR Research. Funded by UK National Institute for Health Research. See <https://www.sheffield.ac.uk/scharr/research/centres/ctru/enact>.
- ‘European Sepsis Academy-Initial Training Network: Towards new Biomarkers to Improve Sepsis Management’, funded by EU Initial Training Network program, 2016-2019, with Dr W.J. Wiersinga (Academic Medical Center, Univ. Amsterdam) and others www.europeansepsisacademy.eu; Consortium: 3.895M Euro; INSEAD 525K Euro.
- Jan 2003-Dec 2004. Model Transition Sensitivity Analysis, SBIR Phase II project, funded by the National Institute of Allergy and Infectious Diseases to BioMedware, Inc. Consultants: S. Chick, J. Koopman.
- May 2001. Model Transition Sensitivity Analysis, SBIR Phase I project, funded by the National Institute of Allergy and Infectious Diseases to BioMedware, Inc. Consultants: S. Chick, J. Koopman.
- 5/2000-4/2003. Vaccine Trials Using Individual and Ecological Units. awarded by the National Institutes of Health (NIH DMID/NIAID). PI: Chick, S.E.; Co-investigators: Koopman, J.S., Gilsdorf, J.R., Simon, C.P. (\$871,648 over 3 years) Assessment of vaccine trial designs, application to *H. influenza*.
- 9/1999-8/2002. Disease Transmission Modeling For Pathogens in Drinking Water. awarded by the United States Environmental Protection Agency (EPA). PI: Chick, S.E.; Co-investigator: Koopman, J.S. (\$300,000 over 3 years) Development of mathematical infection transmission models to support water treatment decisions.
- 9/1997-8/2000. Use of Partner Histories to Focus HIV and STD Prevention. awarded by Center for Disease Control (CDC), Atlanta. PI: Koopman, J.S.; Co-investigators: Chick, S.E., Wilson, M., Becker, M. (\$334,082 over 3 years, \$53,000/year in CoE sub-account) Engineering approach to improving surveillance and intervention programs.
- 10/97-6/1998. Analysis of Reconfigurable Machining Systems. PI: Hu, J.; Co-PIs: Koran, Y., Chick, S., awarded by Univ of. Michigan/NSF ERC for Reconfigurable Machining Systems, Project 1.3. Evaluation of methodologies to determine effects of reliability on system performance, and means to efficiently select the best reconfigurable system.
- 2/1998. Optimization of Public Health Program Efficiency Through Simulation Analysis, PI: Chick, S., awarded by Univ. of Michigan, Office of Vice President for Research. (\$10,000).
- 5/1997-5/1998. Problem Solving Utilizing Statistical Simulation Models. PI: Chick, S.; Co-PI: Henderson, S., awarded by Chrysler Challenge Fund. (\$50,000). Delivered EXCEL add-ins for to aid statistical decision-making, made available Chrysler-wide through the Reliability Group’s WWW page.
- 10/96-6/1998. A Multi-Attribute Method for Selecting Machine Tool Systems, PI: White, C.C.; Co-PIs: Chick, S., Olsen, T., Sethuraman, K., Stecke, K., awarded by Univ of. Michigan/NSF ERC for Reconfigurable Machining Systems, Project 1.3. (\$104,000).
- 9/1995-9/1998. Rackham Research Initiation, awarded by Univ. of Michigan. (\$15,000).

Additional Professional Activities:

- Jurist, 2023, INFORMS Health Applications Society Best Student Paper Competition.
- Jurist, 2022, POMS College on Healthcare Operations Management (CHOM) Best Paper Award.
- 2021 Winter Simulation Conference (WSC) Reviewer Award.
- INFORMS 2021 Junior Faculty Forum Paper Competition jurist, for INFORMS Junior Faculty Interest Group.
- Current Editorial: Associate Editor, *Management Science*, Stochastic Models and Simulation (Jan 2009-today; 2001-2005) and Healthcare (2018-today) departments; Guest co-editor: Special issue of *Frontiers in Public Health* (2022), on The Science and Art of Value in Healthcare: Measures, Voices and Methods

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- Past Editorial: Area Editor, *Operations Research*, Simulation Area (Jan 2012-Dec 2017); Senior Editor, *Production and Operations Management*, Healthcare Ops Department (2011-2021); Associate Editor, *Operations Research*, Simulation Area (Jan 2006-Dec 2011); Area Editor, *ACM Transactions on Modeling and Computer Simulation*, Decision Making for Simulation (2006-Dec 2008); Editorial Board, *Health Care Management Science* (Jan 2004-Dec 2005); Associate Editor, *Naval Research Logistics* (2004-2005).
 - Search committee member (2019) to identify new Editor-in-Chief for journal *Health Care Management Science*.
 - Judge, Hospital Management Asia Awards 2019, Innovations in Healthcare Technology category.
 - Meritorious Service Awards: *Operations Research* 2010, 2007 (editorial), plus mentions for refereeing. *Management Science* 2013 (editorial).
 - Outstanding Work Performed as Senior Editor for *Production and Operations Management Journal* (2016).
 - Elected officer of *INFORMS Simulation Society* (formerly College on Simulation) Officer: Past-President '08-'10; President '06-'08; Vice President/President-Elect, '04-'06; Secretary-Treasurer, '02-'04.
 - Appointed posts of *INFORMS Simulation Society*: Newsletter Editor, '00-'02; Associate Newsletter Editor, '98-'00.
 - *Production and Operation Management Society's College on Healthcare Operations Management*: Advisory Board (2008-2009).
 - Conference Organization / Committees:
 - Cluster Co-Chair, 2021 INFORMS Annual Conference, Health Applications Society Cluster.
 - Program Chair, 2016 Winter Simulation Conference, Washington DC, December 11-14, 2016.
 - Other INFORMS-SIM activities: Nominations Committee (2015).
 - Co-Chair, 2013 INFORMS MSOM Conference, Fontainebleau, FR, 28-30 July 2013.
 - International Programme Committee, EURO Working Group on Operational Research Applied to Health Services, Annual Conference, Istanbul, Turkey, 7–12 July 2013.
 - Scientific Programme Committee, Uncertainty in Computer Models 2012 Conference, Sheffield, UK, 2–4 July 2012.
 - General Chair: First INFORMS Simulation Society Research Workshop (Fontainebleau, FR, July 5-7, 2007).
 - Co-Editor: Proceedings of the 2003 Winter Simulation Conference.
 - Other Positions: LaTeX Committee for WSC '01 and WSC '02 Proceedings.
 - Track Organizer: INFORMS 2021 Annual Conference Health Application Society Cluster Co-chair. WSC 2012 (co-chair, Healthcare Applications); WSC 2010 (Health Care Applications track); WSC 2005 (Introductory Tutorial); INFORMS Fall 05, Fall 06 (Simulation); IFORS Hawaii 05 (Simulation);
 - Session Organizer or Chair: INFORMS Montreal (4/98), Winter Simulation Conference (98, 99, 01, 04, 05), EuroINFORMS Istanbul (7/2003), EUROMA 2004, stopped keeping track.
 - Member: American Association for the Advancement of Science; American Statistical Association; Institute for Operations Research and Management Science (INFORMS), including the Simulation Society, Health Applications, Applied Probability and MSOM groups; European Society of Clinical Microbiology and Infectious Diseases (ESCMID); Association for Computing Machinery; Sigma Xi.
 - Referee/reviewer (alphabetical): Journal of Machine Learning Research;
Journals: ACM Transactions on Modeling and Computer Simulation; American Journal of Epidemiology; BioMed Central Infectious Diseases; Central European Journal of Operational Research; Decision Analysis; Environmental Science and Technology; Expert Review of Pharmacoeconomics and Outcomes Research; Expert Review of Vaccines; European Journal of Operations Research; Health Care Management Science; Interfaces; IEEE Transactions on Man, Machine, and Cybernetics; IIE Transactions; INFORMS Journal on Computing; International Trans. in Operational Research (ITOR); Interactive Trans. of ORMS (ITORMS); J. American Statistical Association; Journal of Simulation; Microbes & Infection; Naval Research Logistics; Management Science; Mathematical Biosciences; Operations Research; OR Spectrum; Preventive Medicine; Production and Operations Management

(including guest Associate Editor for special issue on health); Risk Analysis; SIAM Journal on Control and Optimization; Vaccine;

Conferences: Winter Simulation Conference (many years); MSOM; others.

Books: Cambridge University Press; John Wiley & Sons; McGraw-Hill; MIT Press;

Agencies: National Institutes of Health (NIAID), National Science Foundation (Decision, Risk and Management Science; Cyber-Enabled Discovery and Innovation);

- Tenure/Promotion/Appointment Letters: Quite a few external cases.
- Jurist, 2007 and 2016 Pierskalla Award Committees (INFORMS Health Applications Society).
- School Service:
Michigan: Engineering Global Leadership Admissions Committee (F95-01). Undergraduate Committee (95-01). First-Year Student Advisor (F97, W99, F99-01). IOE Advisor for dual Master's in Hospital System Administration/Industrial Engineering program (98-01). First-Year Computing Committee (W97). Department Committee (96-97; 98-99).
INSEAD: Academic Chair, Healthcare Management Initiative, (2008-present), Covid Crisis Management Committee (Winter 2022), Dean Renewal Committee (2017), Faculty Evaluation Committee (member 06-08, chair 13-14, member 14-15), Area Coordinator/Chair (09-12), Abu Dhabi Task Force (10), Middle East Steering Committee (06-08), Chair of R&D Committee (06-08), POM Ph.D. Coordinator (03-06), Technology Management Research Seminar Coordinator (01-03) and Hiring Committee (several times).