

Andres Alban

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ACADEMIC POSITIONS

- Postdoctoral research fellow, MGH Institute for Technology Assessment, Harvard Medical School (2021-present)

EDUCATION

- Ph.D.** INSEAD, Technology and Operations Management (2021)
- M.S.** INSEAD, M.S. in Management (2018)
GPA: 3.9
- B.S.** New Jersey Institute of Technology, double major in applied mathematics and physics (2016)
Albert Dorman Honors College, GPA: 4.0

RESEARCH INTERESTS

Healthcare operations, clinical trials, personalized medicine, Bayesian optimization, stochastic simulation

JOURNAL PUBLICATIONS

- Alban, A., Blaettchen, P., de Vries, H., and Van Wassenhove, L. N. (2021 to appear). Resource allocation with sigmoidal demands: Mobile healthcare units and service adoption. *Manufacturing & Service Operations Management*.
- Forster, M., Brealey, S., Chick, S. E., Keding, A., Corbacho, B., Alban, A., and Rangan, A. (2021). Cost-effective clinical trial design: Application of a Bayesian sequential stopping rule to the proflifer pragmatic trial. *Clinical Trials*.
- Alban, A., Chick, S. E., Dongelmans, D. A., Vlaar, A. P. J., and Sent, D. (2020a). ICU capacity management during the covid - 19 pandemic using a process simulation. *Intensive Care Medicine*
- Alban, A., Darji, H. A., Imamura, A., and Nakayama, M. K. (2017). Efficient Monte Carlo methods for estimating failure probabilities. *Reliability Engineering and System Safety*, 165:376–394

WORKING PAPERS

- Alban, A., Chick, S. E., and Forster, M. (2020b). Value-based clinical trials: selecting trial lengths and recruitment rates in different regulatory contexts. Major revision at Management Science. Finalist POMS College of Healthcare Operations Management Best Paper Competition 2021

WORK IN PROGRESS

- Alban, A., Chick, S. E., and Zoumpoulis, S. A value of information approach to designing sequential clinical trials for precision medicine
- Alban, A., Uhel, F., Zoumpoulis, S., Vlaar, A., Chick, S. E., and Scicluna, B. Blood transcriptomic endotypes and the response to fluid treatment in sepsis: A prospective cohort study

CONFERENCE PROCEEDINGS

- Alban, A., Chick, S. E., Lvova, O., and Sent, D. (2020c). A simulation model to evaluate the patient flow in an intensive care unit under different levels of specialization. In *Proceedings of the 2020 Winter Simulation Conference*
- Alban, A., Chick, S. E., and Forster, M. (2018). Extending a Bayesian decision-theoretic approach to value-based sequential clinical trial design. In *Proceedings of the 2018 Winter Simulation Conference*, pages 2459–2470

- Alban, A., Darji, H. A., Imamura, A., and Nakayama, M. K. (2016). Variance reduction for estimating a failure probability with multiple criteria. In *Proceedings of the 2016 Winter Simulation Conference*, pages 302–313

CONFERENCE PRESENTATIONS

- Value-based clinical trials: selecting trial lengths and recruitments rates in different regulatory contexts. *INFORMS Annual Meeting 2020, POMS Annual Conference 2021*
- A value of information approach to designing sequential clinical trials for precision medicine. *INFORMS Annual Meeting 2019, 2020, POMS Annual Conference 2021, INFORMS Healthcare 2021*
- Fair and efficient? Capacity allocation of mobile family planning services in Uganda. With Philippe Blaettchen, Harwin de Vries, and Luk Van Wassenhove. *INFORMS Annual Meeting 2019*.
- Personalized Fluid Management in Sepsis Using Transcriptomic Endotypes. With Stephen E. Chick, Spyros I. Zoumpoulis, Brendon P. Scicluna, Fabrice Uhel, and Alexander P.J. Vlaar. *INFORMS Healthcare 2019*.
- Value-Based Clinical Trial Design to Account for Features of Pragmatic Trials. With Stephen E. Chick and Martin Forster. *POMS Annual Conference 2019*.
- Extending a Bayesian Decision-Theoretic Approach to Value-Based Sequential Clinical Trials. With Stephen E. Chick and Martin Forster. *Winter Simulation Conference 2018*.

GRANTS AND AWARDS

- Luk N. Van Wassenhove Ph.D. Student Research Award 2019-2020, INSEAD
- European Sepsis Academy, grant provided by the European Union, 2016-2019
 - Attended courses on pathogenesis and treatment of sepsis (Amsterdam University Medical Center), diagnostics technologies (BioMérieux), immune functional assays (BioMérieux), mini MBA (INSEAD), sepsis clinical course (University College London)
- NJIT Provost’s Undergraduate Summer Research program, 2014 and 2015
- NJIT Albert Dorman Honors College Scholarship

TEACHING

- Process and operations management core class for MBA students (online), INSEAD, Spring 2020
- Math tutorials for PhD students, INSEAD, Fall 2017.
- Math tutor and recitation assistant, NJIT Math Tutoring Center, 2013-2016.

SKILLS

- Programming: Julia, Matlab, R, Python
- Languages: Spanish (native), English (fluent), German (intermediate), French (basic)
- Sports: tennis (played NCAA division I at NJIT with scholarship), soccer, ultimate frisbee, touch rugby, basketball