Antoine Désir

CONTACT INFORMATION	Technology and Operations Management, INSEAD Boulevard de Constance, 77305 Fontainebleau Cedex, France	*phone:* (+33) 7 67 38 49 55 *e-mail:* antoine.desir@insead.edu *webpage:* https://faculty.insead.edu/antoine-desir

ACADEMIC APPOINTMENTS

INSEAD, France

Assistant Professor in Operations and Technology Management **Sept 2018 -**

EDUCATION

Columbia University, New York, NY **2012 - 2017**

PhD in Operations Research

- Thesis: *Fundamental tradeoffs for modeling customer preferences in revenue management.*
  - Revenue management and pricing section dissertation prize, 2018

Columbia University, New York, NY **2012**

MS in Operations Research

Ecole Polytechnique, Palaiseau, France **2008 - 2011**

Diplôme d'ingénieur, Majored in Applied Mathematics

RESEARCH INTERESTS

operations management, revenue management, online advertising, choice modeling, approximation algorithms

JOURNAL PUBLICATIONS

1. Désir A, Goyal V, Wei Y, and Zhang J (2016). Sparse process flexibility designs: Is the long chain really optimal?. **Operations Research** 64(2): 416-431.
- Finalist in the George Nicholson student paper competition, 2014
- Finalist in the MSOM student paper competitions, 2014

2. Désir A, Goyal V, Segev D, and Ye C (2020). Constrained assortment optimization under the Markov chain choice model. **Management Science** 66(2): 698-721.
- Finalist in the George Nicholson student paper competition, 2015

3. Désir A, Goyal V, Jagabathula S, and Segev D (2021). Mallows-smoothed distribution over rankings approach for modeling choice. **Operations Research** 69(4): 1206-1227.
- Finalist in the MSOM student paper competitions, 2017

4. Désir A, Goyal V, and Zhang J (2022). Capacitated assortment optimization: Hardness and approximation. **Operations Research** 70(2): 893-904.

5. Singal R, Besbes O, Désir A, Goyal V, and Iyengar G (2022). Shapley meets uniform: An axiomatic framework for attribution in online advertising. **Management Science** 68(10): 7457-7479.
- Second place in the revenue management and pricing student paper competition (student: Raghav Singal), 2019

6. Cohen M, Désir A, Korula N, and Sivan B (2023). Best of both worlds ad contracts: Guaranteed allocation and price with programmatic efficiency. **Management Science** 69(7): 4027-4050.

7. Balseiro S and Désir A (2023). Incentive-compatible assortment optimization for sponsored products. **Management Science** 69(8): 4668-4684.

8. Désir A, Goyal V, Jiang B, Xie T, and Zhang J (2022). Robust assortment optimization under the Markov chain model. Accepted for publication at **Operations Research**.

9. Atasu A, Ciocan F, and Désir A (2023). Price delegation with learning agents. Accepted for publication at **Management Science**.

Submitted /
Under revision

10. Bompaire M, Désir A, and Heyman B. Robust label attribution for real-time bidding. Under second round of revision (First round: Major revision) at **Manufacturing & Service Operation Management**.

11. Aouad A, and Désir A. Representing random utility choice models with neural networks. Under second round of revision (First round: Reject and Resubmit) at **Management Science**.
- Second place in the INFORMS JFIG paper competition, 2022

12. Chen L, Désir A, and Roels G. Fairness concerns in heterogeneous teams: Optimal team composition and contract. Major revision at **Manufacturing & Service Operation Management**.
- Selected for MSOM SIG TIE, 2023

Ongoing
work

13. Désir A and Parmentier A. Efficient Methods for Assortment Optimization using Neural Networks.

14. Atasu A, Désir A, Urlu B, and Van Wassenhove L. Humanitarian donors' fund allocation decision: impact of risk-aversion, information asymmetry and intermediary bias.

15. Désir A, Iancu D, and Vizzoto F. Choice modeling for food nutrition.

16. Aouad A, Auriau V, and Désir A. Large-scale assortment optimization.

Refereed
Conference
Proceedings

18. Singal R, Besbes O, Désir A, Goyal V, and Iyengar G (2019). Shapley meets uniform: An axiomatic framework for attribution in online advertising. *Proceedings of ACM World Wide Web Conference (WWW)*.

19. Désir A, Goyal V, Jagabathula S, and Segev D (2016). Assortment optimization under the Mallows model. *Proceedings of Neural Information Processing Systems (NIPS)*.

20. Désir A, Goyal V, and Segev D (2016). Assortment optimization under a random swap based distribution over permutations model. *Proceedings of ACM Conference on Economics and Computation (EC)*.

21. Désir A, and McEneaney W (2013). Games of network disruption and idempotent algorithms. *Proceedings of European Control Conference (ECC)*.

Other
publications

Boosting vaccine production needs the right degree of flexibility, November 3 2021, INSEAD Knowledge. (with Prashant Yadav)

Making sense of attribution in online advertising, July 19 2022, INSEAD Knowledge.

Case studies

Désir A, Satopää V A, Heely L, and Sibony E (2022). To catch a thief: Explainable AI in insurance fraud detection. INSEAD Case with Teaching Note.
- Second place in the INFORMS case competition, 2022

AWARDS	**Research**	
	Second place INFORMS JFIG paper competition, 2022	
	Second place revenue management and pricing student paper prize (student: Raghav Singal), 2019	
	Revenue management and pricing section dissertation prize, 2018	
	Finalist MSOM student paper competition, 2017	
	Finalist George Nicholson student paper competition, 2015	
	Finalist George Nicholson student paper competition, 2014	
	Finalist MSOM student paper competition, 2014	
	Teaching	
	Second place INFORMS case competition, 2022	
	Dean's commendation for excellence in MBA teaching, 2020	
	Service	
	MSOM meritorious service award, 2022	
	Management Science distinguished service award, 2022	
	Management Science meritorious service award, 2018, 2020, 2021, 2023	

TEACHING
EXPERIENCE

INSEAD   **2018 -**

- Process and Operations Management (MBA core)
- Social Media Analytics (MBA elective)
- Foundations of Optimization (PhD)
- Linear Optimization (PhD)

Columbia University

- Introduction to Probability and Statistics (Instructor)   **Fall 2013**
- Operations Consulting (Teaching assistant)   **2012 - 2016**

INDUSTRY
EXPERIENCE

Google, New York, NY
Postdoctoral Research Scientist   **Aug 2017 - Aug 2018**
Research Intern   **Summer 2016**

Mediaocean, New York, NY
Software Engineer Intern   **Summer 2013, Summer 2014**

INVITED
SEMINARS

HEC Paris	Nov 2023 (Scheduled)
INSEAD School Wide Seminar Series	May 2023
NEOMA Business School	Mar 2023
NUS, IORA	Feb 2023
Imperial Business School, Analytics and Operations	June 2022
HKUST, ISOM	Aug 2021
Workshop Information Learning at IESE	July 2021
Yale, School of Management	May 2021
European TOM Series	Nov 2020
Criteo (Beer and Tech series)	Nov 2019
SPO (Seminaire d'Optimisation Parisien)	Mar 2019
New York University, Stern School of Business	May 2018
Google Research, NYC	Mar 2017
HEC Montreal	Feb 2017
UCLA, Anderson School of Management	Feb 2017
University of Pittsburgh, Industrial Engineering Department	Feb 2017

Carnegie Mellon University, Tepper School of Business	Feb 2017
HEC Paris	Feb 2017
INSEAD, Technology & Operations Management	Feb 2017
University of Chicago, Booth School of Business	Jan 2017
Harvard Business School, TOM	Jan 2017
Duke University, Fuqua School of Business	Jan 2017
Michigan University, Ross School of Business	Jan 2017
University of British Columbia, Sauder School of Business	Jan 2017
University of Illinois at Urbana–Champaign	Jan 2017
Cornell University, ORIE Department	Jan 2017
Northwestern University, Kellogg School of Management	Jan 2017
MIT, Sloan School of management	Dec 2016
Young Researchers Workshop at Cornell ORIE	Oct 2015

CONFERENCE PRESENTATIONS		
	INFORMS, Phoenix, AZ	Oct 2023
	MSOM, Montreal, Canada	June 2023
	MSOM, Munich, Germany	June 2022
	Revenue Management and Pricing Conference (Virtual)	June 2021
	MSOM (Virtual)	June 2021
	INFORMS, Seattle, WA	Nov 2019
	POMS, Washington DC	May 2019
	INFORMS, Phoenix, AZ	Nov 2018
	ISMP, Bordeaux, France	Jul 2018
	Revenue Management and Pricing Conference, Toronto, Canada	Jun 2018
	INFORMS, Houston, TX	Oct 2017
	INFORMS, Nashville, TN	Nov 2016
	MSOM, Auckland, NZ	Jun 2016
	Revenue Management and Pricing Conference, New York, NY	May 2016
	INFORMS Annual Meeting, Philadelphia, PA	Nov 2015
	MSOM, Toronto, ON	Jun 2015
	Revenue Management and Pricing Conference, New York, NY	May 2015
	ISMP, Pittsburg, PA	Jul 2015
	INFORMS Annual Meeting, San Francisco, CA	Nov 2014
	MSOM, Seattle, WA	Jun 2014
	INFORMS Annual Meeting, Minneapolis, MN	Nov 2013

PROFESSIONAL SERVICE

Reviewer (journals): *Operations Research, Management Science, Manufacturing & Service Operations Management, Production and Operations Management, Stochastic Systems, INFORMS Journal on Optimization, Operations Research Letters*

Reviewer (conferences): ACM Conference on Economics and Computation (EC), Web Conference, Neural Information Processing Systems (NeurIPS)

Session chair: INFORMS 2018, 2019, 2020, 2021, 2022, 2023

Program committee member for the Web Conference in 2019-2021.

Judge for MSOM student paper competition in 2020-2023.

Judge for MSOM Supply Chain Management SIG in 2020-2023, and Service SIG in 2022-2023.

Judge for Nicholson student paper competition in 2022-2023.