


Utsav Sadana

Postdoctoral Fellow | Desautels Faculty of Management, McGill University

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 Montréal, QC, Canada

Academic History

HEC Montréal, Canada

Aug. 2017 – May 2021

Ph.D., Management Science

Advisor: [Prof. Georges Zaccour](#)

University of Illinois at Urbana-Champaign (UIUC), USA

Sep. 2019 – Feb. 2020

Visiting Ph.D. student at Coordinated Science Lab

Hosted by [Prof. Tamer Başar](#)

Indian Institute of Technology Kanpur, India

Jul. 2012 – May 2017

B.Tech in Materials Science and Engineering (Passed with Distinction)

M.S., Economics

Work Experience

McGill University, Montréal Canada

May 2021 – Present

Postdoctoral Fellow

Mentors: [Prof. Mehmet Gumus](#) & [Prof. Erick Delage](#)

ORT France, Paris

Summer 2015

Research Intern

Mentor: Dr. Michel Rudnianski

Publications

Preprints

4. **Feedback Nash Equilibria in Differential games with Impulse Control.**

U. Sadana, P.V. Reddy and G. Zaccour.

arXiv:2106.10706, 2021.

 [Paper](#)

3. **Sampled-data Nash equilibria in differential games with impulse controls.**

U. Sadana, P.V. Reddy, T. Başar and G. Zaccour.

Technical report, Les Cahiers du GERAD G-2020-81, GERAD, HEC Montréal, Canada, 2020.

 [Paper](#)

2. **The value of randomized strategies in distributionally robust risk averse network interdiction games.**

U. Sadana and E. Delage.

Technical report, Les Cahiers du GERAD G-2020-20, GERAD, HEC Montréal, Canada, 2020.

 [Paper](#)

1. **Open-loop and feedback Nash equilibria in scalar linear-state differential games with impulse control.**

U. Sadana, P.V. Reddy and G. Zaccour.

Technical report, Les Cahiers du GERAD G-2020-19, GERAD, HEC Montréal, Canada, 2020.

 [Paper](#)

Journal Paper

1. **Nash equilibria in nonzero-sum differential games with impulse control.**

U. Sadana, P.V. Reddy and G. Zaccour.

European Journal of Operational Research, 295(2), 792-805, 2021.

 [Paper](#)

Book Chapter

1. Bayesian Networks and Games of Deterrence.

M. Rudnianski, U. Sadana, and H. Bestougeff.

In Petrosyan, L. A. and Mazalov, V. V., editors, *Recent Advances in Game Theory and Applications: European Meeting on Game Theory, Saint Petersburg, Russia, 2015, and Networking Games and Management, Petrozavodsk, Russia, 2015* (pp. 201–224). Cham, Switzerland: Springer, 2016. [🔗 Book chapter](#)

Selected Awards and Honors

- GERAD Postdoctoral Fellowship. 2021 – 2022
- FRQNT Postdoctoral research scholarship (B3X). 2021 – 2023
- PBEER Quebec-India PhD Research Scholarship. Awarded to 3 Indian Ph.D. students. 2019 – 2021
- FRQNT Doctoral Research Award (B2X). Ranked 1 among 10 selected for this award. 2019 – 2021
- FRQNT International Internship scholarship for a 6-month internship at UIUC, Illinois. 2018
- J.A. DeSève Excellence Scholarship, HEC Montréal. Awarded to 1 Ph.D. student every year. 2018
- J.A. DeSève Admission Scholarship, HEC Montréal Foundation. 2017 – 2021
- Admission Scholarship, Chair of Game Theory and Management, GERAD & HEC Montréal. 2017 – 2021
- Graduate Research Award (MHRD, India) to pursue Masters at IIT Kanpur. 2016
- Merit-cum-Means Scholarship, IIT Kanpur. 2013, 2014, 2015
- Summer Research Scholarship, ORT France, Paris. 2015
- Secured 3rd position amongst 90 teams in Manthan National Youth Competition, India. 2013

Talks

- **Nash equilibria in nonzero-sum differential games with impulse control.**
 - Virtual Informal Systems Seminar, McGill and GERAD Oct. 2020
 - Workshop on Differential Games, Stony Brook Center for Game Theory, NY, USA. [🔗 video](#) Jul. 2020
 - Optimization Days, Montréal, Canada, May 2019
 - 11th Workshop on Dynamic Games in Management Science, Montréal, Canada Oct. 2019
- **The value of randomized strategies in distributionally robust risk averse network interdiction problems**
 - Canadian Operational Research Society (CORS) Annual Conference (virtual) Jun. 2021
 - INFORMS Annual Meeting (virtual) [🔗 slides](#) [🔗 video](#) Nov. 2020
 - CRC-DMU Seminar Series (virtual) Jun. 2020

Academic Service

- **Co-organizer** of the online seminar series [Dynamic Games and Applications](#)
- **Reviewer** for Operations Research Letters, The IEEE Control System Letters, and IEEE Transactions on Systems, Man, and Cybernetics: Systems
- **Session assistant** for an Information Theory session at Allerton Control Conference, 2019

Social Initiatives & Mentorship

Workshop, Mathematics and Statistics Help Center, HEC Montréal Apr. 2019 – May 2019

- Prepared content (lecture notes, handouts, and slides that covered basics of linear algebra and probability theory) for conducting a workshop to help the incoming Master's students, in the field of economics, finance, and quantitative methods in management.

Inclusive Development of Informal Sector Workers May 2013 – Oct. 2013

Team Project, Citizens for Accountable Governance (CAG)

- Proposed structural layout for registration and grievance redressal of Informal Sector workers.