## **PSOR Newsletter**

Volume 9, No. 1, December 2021

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# The BRIEFING

## PSOR Sessions at the 2021 INFORMS Annual Meeting

The 2021 INFORMS annual meeting was conducted in three modes: inperson, online, and hybrid. Across these three modes, the PSOR cluster sponsored a total of 37 sessions with 145 total presentations; note that these were unique due to replication across the different modes of participation. Our cluster included a joint session with the Health Applications Society, a panel session on "Getting Started in Public Sector OR", the PSOR Best Paper Award session, and four committee's choice sessions titled:

- "Operations Research and Vulnerable Populations"
- "Analytics for Urban Public Service Operations"
- "Diversity, Equity, and Inclusion in OR/MS/Analytics" (two sessions)

Other topics in the PSOR cluster included sessions focused on:

- Humanitarian operations and disaster response
- Human migration and trafficking
- Community engaged operations research
- Clean energy and resilient infrastructure

## 2021 PSOR Best Paper Competition

This year, the Co-chairs of the PSOR Best Paper Competition were Somya Singhvi (USC) and Yanchong Zheng (MIT).

The award committee consisted of Amrita Kundu (McDonough School of Business), Anyan Qi (University of Texas at Dallas), Ashish Kabra (University of Maryland, College Park), Auyon Siddiq (UCLA Anderson), Can Zhang (Duke University), Christian Blanco (The Ohio State University), Divya Singhvi (NYU Stern), Deeksha Sinha (MIT), Ekaterina Astashkina (Ross School of Business), Elisabeth Paulson (Stanford University), Irene Lo (Stanford University), Morvarid Rahmani (Georgia Tech), Priyank Arora (Isenberg School of Management), Ruth Beer (Baruch College), Saed Alizamir (Yale University), Samantha Keppler (University of Michigan), Sebastien Martin (Kellogg School of Management), Song-Hee Kim (USC), Soroush Saghafian (Harvard). We are grateful to the co-chairs and the committee for their service.

The committee received a total of 52 submissions in the following major areas:

- Healthcare (21)
- Disaster management / pandemic response (10)
- Public policy (10)
- Other areas: Sharing Economy, Agriculture, Standardized Testing, Volunteering

The criteria for selecting the best paper were: problem importance, results, writing, relevance to the public sector, and overall recommendation, all of which were given equal weight. The process was double blind and chairs did not vote.

There were two rounds. In the first round, every paper was evaluated by two judges, subject to no conflict of interest and the 4 top papers were shortlisted as finalists. In the second round, judges with conflicts of interest recused and all remaining judges voted for all the finalist papers.

The four finalist papers were:

- Off-Grid Lighting Business Models to Serve the Poor: Evidence From a Structural Model and Field Experiments in Rwanda, Bhavani Shanker Uppari (Singapore Management University), Serguei Netessine (Wharton School), Ioana Popescu (INSEAD), Rowan P. Clarke (Harvard Business School)
- Deploying a Reinforcement Learning System for COVID-19 Testing at the Greek Border, Hamsa Bastani (Wharton School), Kimon Drakopoulos (USC), Vishal Gupta (USC), Jon Vlachogiannis (AgentRisk), Christos Hadjicristodoulou (University of Thessaly), Pagona Lagiou (School of Medicine, National and Kapodistrian University of Athens), GkikasMagiorkinis (School of Medicine, and KapodistrianUniversity of Athens), Dimitrios National Paraskevis (School of Medicine, National and Kapodistrian Athens), Sotirios Tsiodras(School of Medicine, University of National and Kapodistrian University of Athens)
- COVID-19: Prediction, Prevalence and the Operations of Vaccine Allocation, Georgia Perakis (MIT), Amine Bennouna (MIT), Joshua Joseph (MIT), David Nze-Ndong (MIT), Divya Singhvi (NYU), Omar Skali Lami (MIT), Ioannis Spantidakis (MIT), Leann Thayaparan(MIT), Asterios Tsiourvas (MIT)
- Unmasking human trafficking risk in commercial sex supply chains with machine learning, Pia Ramchandani

(Wharton School), Hamsa Bastani (Wharton School), Emily Wyatt (TellFinder Alliance)

The paper "Deploying a Reinforcement Learning System for COVID-19 Testing at the Greek Border" won second place.

The winner of the PSOR Best Paper Competition was "Off-Grid Lighting Business Models to Serve the Poor: Evidence From a Structural Model and Field Experiments in Rwanda"

Congratulations to all participants!

#### PSOR Officers 2022

President Andrew Trapp President-Elect

Gemma

Berenguer

Past President

Jessica Heier Stamm

Secretary /

Treasurer

Feyza G.

Sahinyazan

Senior VP of

Programs

Justin J. Boutilier

Junior VP of Programs

Mahyar Eftekhar VP of Communications

Phebe Vayanos

## **2021 PSOR Election Results**

PSOR officers include President, President-Elect, Secretary/ Treasurer, Senior Vice President of Programs, Junior Vice President of Programs, and Vice President of Communications. The positions held for the year 2022 are listed below.

President: Andrew Trapp

I believe there are bright horizons ahead for the intentional use of operations research and analytics to address thorny issues in our society. I intend to champion the use of operations research and analytics to find solutions that incorporate a broader range of perspectives than solely profit maximization, by emphasizing diverse societal perspectives including those of customers, employees, the environment, and especially of the vulnerable.

#### President-Elect: Gemma Berenguer

I am a Ramón y Cajal Fellow at the Departement of Business Administration at Universidad Carlos III de Madrid (Spain). My major research topics are related to nonprofit operations, sustainable and socially responsible operations, and supply chain design. I believe that the current times are presenting us with an unprecedented opportunity for the PSOR Section to increase its visibility, expand its activities, and extend its influence to a large fraction of INFORMS members. Participating in the PSOR board as president-elect is a great honor and a big chance to actively take part in these activities with a great group of board members and PSOR members.

#### Senior VP of Programs: Justin J. Boutilier

I am the Charles Ringrose Assistant Professor in Industrial and Systems Engineering at the University of Wisconsin – Madison. I am honored to serve as part of the PSOR board. I have thoroughly enjoyed interacting with members of the PSOR community to organize conference activities and highlight the exciting work of the PSOR community.

#### Junior VP of Programs: Mahyar Eftekhar

I am an Associate Professor of Supply Chain Management at W. P. Carey School of Business. My research concentrates on nonprofit operations management, global health and humanitarian development programs as well as disaster response operations. As a VP of Programs, I have two goals. First, I would like to identify ways to improve program activities not scheduled at INFORMS (e.g., organizing practitioners' webinars, finding ways to further introduce the work of doctoral students and junior faculty). My second goal centers on further diversifying both the topics/methods presented at INFORMS meetings as well as researchers involved in PSOR activities.

#### VP of Communications: Phebe Vayanos

I am an WiSE Gabilan Assistant Professor of Industrial & Systems Engineering and Computer Science at the University of Southern California, and Associate Director of the CAIS Center for Artificial Intelligence in Society. My research is focused on optimization, artificial intelligence, and machine learning, in particular on algorithmic fairness, interpretability, and robustness. My mission is to design systems that drive efficient decision-making while addressing bias and inequality, to tackle problems such as homelessness, substance use, suicide prevention, and organ allocation. My work strives to better assist underserved and marginalized communities in these areas by giving them an active role in the design of the systems that affect them. As PSOR VP of Communications, I plan to continue elevating the work of the PSOR community, e.g., by creating new competitions, new channels through which to share the work of our community, and by connecting to other communities with similar goals.

#### Secretary/Treasurer: Feyza G. Sahinyazan

Currently, I am an Assistant Professor of Technology & Operations Management at the Beedie School of Business, Simon Fraser University. I consider PSOR as my home at INFORMS since my annual meeting in 2011, as it was the best place to meet with and learn from like-minded colleagues working on public sector, healthcare, and humanitarian problems. I am hoping to assist a knowledge management transition for PSOR, so that each new board can easily access the information accumulated by the previous officers, and PSOR can continue to operate smoothly.

#### Past President: Jessica Heier Stamm

I am an Associate Professor of Industrial and Manufacturing Systems Engineering at Kansas State University and a graduate faculty member in the university's interdisciplinary public health program. I am grateful for the opportunity to serve the PSOR community. I continue to learn from and be inspired by the work that our members do, and it is my aim to help create processes within PSOR to support and recognize this work.

## 2021 PSOR Business Meeting

The 2021 PSOR Business Meeting was held via Zoom on October 27 in conjunction with the INFORMS Annual Meeting. Slides are available here:

https://www.dropbox.com/s/shlldp6wereiqup/2021%20PSOR%20Business%20Meeting.pptx? dl=0

Highlights included recognizing the Best Paper Award honorees and introducing the 2022 section officers. Breakout groups for networking followed the meeting. These were complemented by trivia and prize drawings coordinated by Hanisha Tatapudi (student member), Chaitra Gopalappa (2021 secretary/treasurer), and Andrew Trapp (2021 president-elect).

## From the Editor

Dear members,

Over the last year, our 2021 PSOR Committee made significant strides towards increasing the visibility of the PSOR community, e.g., by organizing an impressive set of sessions at the INFORMS Annual Meeting 2021 and by running a best paper competition that attracted some really competitive submissions. In addition, our committee doubled the number of followers of our twitter account. We also ran some unusual activities this year. In particular, we liaised with the INFORMS AI Task Force to connect members of the PSOR community that have done impactful research at the interface of PSOR and AI to the INFORMS communications and marketing teams to help promote their work and help increase the visibility of the PSOR community among the public and among governmental and nongovernmental organizations. Notably, op-eds/pitches/podcasts, summaries, or case studies are being prepared as appropriate to showcase these important works in healthcare, community-based operations research, renewable energy, refugee resettlement, and cybersecurity.

As I continue my role as VP of communications for PSOR, I look forward to even more exciting such initiatives this year!

Phebe Vayanos

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## **Previous Issues of the Briefing**

Previous Issues of the Briefing, Public Sector OR Newsletter, are available here.

Volume 8, 2020

- The Briefing, Vol 8, No.2
- The Briefing, Vol 8, No.1

Volume 7, 2019

- The Briefing, Vol 7, No.2
- The Briefing, Vol 7, No.1

Volume 6, 2017

• <u>The Briefing, Vol 6</u>

Volume 5, 2014

- <u>The Briefing, Vol 5, No 2</u> Volume 4, 2013
  - The Briefing, Vol 4, No 2
  - The Briefing, Vol 4, No 1

Volume 3, 2012

- The Briefing, Vol 3, No 2
- <u>The Briefing, Vol 3, No 1</u>

Volume 2, 2011

- The Briefing, Vol 2, No 2
- The Briefing, Vol 2, No 1

Volume 1, 2009

• The Briefing, Vol 1, No 1

Please let us know if you have any questions or comments.