

# INFORMS Health Applications Society

## Spring 2022 Newsletter



<http://www.informs.org/Community/HAS>

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## Message from the President

Dear INFORMS Health Application Society (HAS) Community,

The work of health care workers continues to be of great importance, and it is wonderful to see our community rising to the occasion to address issues around the design, improvement, innovation, and access of health care around the world. These have been a challenging past two years with the COVID-19 pandemic settling in, causing adaptation, inspiring amazing work as we worked through challenges, and to support health around the world. This, even though many of us have faced (or continue to face) personal and professional challenges. That said, it is great to see travel restrictions allowing for greater interaction in person.

This year our board is working to develop an exciting program for this fall's INFORMS Annual Conference with a goal of bringing us together and sharing knowledge gained, organizing Awards programs to recognize some of the great work that members of our community has been doing this past year, to organize online seminars that feature exciting research, and to support the development of PhD students as they transition to careers after graduation. Continuing their HAS board membership with me this year are Past President Maria Mayorga (North Carolina State University), Pengyi Shi (Purdue University) as Communications & Outreach Coordinator, and council members Qiushi Chen (Pennsylvania State University), Jennifer Mason Lobo (University of Virginia), and Sait Tunc (Virginia Tech). Lisa Maillart continues to represent HAS on the INFORMS Subdivision Council. I'm pleased to welcome the new members of the HAS board, VP/President Elect Timothy Chan of the (University of Toronto), Secretary Shan Liu (University of Washington), and Treasurer Pooyan Kazemian (Case Western University), and am thankful for the outgoing members of the board, Mark Van Oyen (University of Michigan) for his great handoff from being past president, Hadi El-Amine (George Mason University) for his diligent support in the transition for the role of Secretary, and Sze-chuan Suen (University of Southern California) for her reliable service as Treasurer this past year. This is a wonderful group to work with.

Here are a few events of note for the HAS community. *Please also note several italicized items - they are opportunities for you and/or your students to engage further in our HAS Community.*

- The 2021 INFORMS Annual Conference this past fall included the announcements of several award winners, including recognition for the 2021 Bonder Scholarship for Applied Operation Research in Health Services, the 2021 Pierskalla Best Paper Award, and the 2021 Sanjay and Panna Mehrotra Research Excellence Award. More info follows in this newsletter.
- Many thanks to the chairs of the committees who are organizing the 2022 HAS Awards – with chairs Hadi El-Amine the Bonder Scholarship for Applied Operation Research in Health Services Committee, Paul Griffin the Sanjay and Panna Mehrotra Research Excellence Award, and Andrew Li the Pierskalla Best Paper Award. *Please see the information below for*

*applications or nominations for these awards including deadlines. And many thanks to those in our community that are serving on these committees.*

- Sait Tunc and Qiushi Chen continue to work with Sanjay Mehrotra to continue the successful launch of the HAS Virtual Seminar Series. The series continues to be well-attended, in no small part thanks to the outstanding presenters and the work they have done. *Please see the article in the newsletter below for information on how to join the seminars.*
- Timothy Chan, together with Anahita Khojandi (University of Tennessee-Knoxville) are pulling together what promises to be an excellent Health Applications Society Cluster at the 2022 INFORMS Annual Meeting in Indianapolis, 16-19 October 2022. Included in the line-up are panel sessions on topics for professional support going beyond COVID, and for career development following a period where it has been harder for colleagues to connect. Panel session topics include: “Post-COVID, what’s next?”, “Publishing in Medical Journals”, “DEI research in healthcare”, “Healthcare Journal Editors, and “Student-Faculty Transition”. *Please consider attending and/or otherwise participating and/or presenting in the HAS Cluster.*
- On the topic of student career development, I’d like to thank Jennifer Mason Lobo and Pengyi Shi for their work with an energetic and supportive Student Liaisons for 2022, Jade Xiao (Georgia Tech), Jaeyoung (Jaey) Kim (Clemson), Jeremy Watts (University of Tennessee-Knoxville), and Yanhan Tang (Carnegie Mellon). They have published a newsletter. *I would really like to encourage applications for the 2023 HAS Student Liaison team – this is a great opportunity for PhD students to get to know the workings of our community – please see the associated article in this newsletter.*

Looking forward to strong participation in INFORMS HAS this year, at a time when COVID-19 has raised awareness, interest, and research collaborations in health, and when the importance for the rest of the health system regarding access, optimization, transformation through digital, technological, and other innovations continues.

Stephen (Steve) E Chick  
2022 INFORMS HAS President  
Novartis Chair of Healthcare Management  
INSEAD – Technology and Operations Management Area  
Europe Campus

## **2021 Bonder Scholarship for Applied Operations Research in Health Services**

As announced at the HAS business meeting, the 2021 Bonder Scholarship was awarded to **Luke DeRoos** from the University of Michigan for his research on “Improving Health Outcomes for Rural Patients: An Application to Macular Degeneration.” DeRoos’s research advisor is Mariel Lavieri.

Congratulations to Luke and many thanks to this year's award committee chair, Jónas Oddur Jónasson, and to the evaluation committee involved.



**About the Bonder Scholarship:** The purpose of the Bonder Scholarship for Applied Operations Research in Health Services is to promote the development and application of operations research analyses to health care design, delivery, and operations. The scholarship provides funding of \$5,000 to support the development of promising new researchers in healthcare operations research.

## 2021 Pierskalla Award

As announced at the HAS business meeting, the 2021 Pierskalla Best Paper award goes to **Kyra Gan, Su Jia, Andrew Li, Sridhar Tayur** for their paper, “Toward a Liquid Biopsy: Greedy Approximation Algorithms for Active Sequential Hypothesis Testing,” and **Hamsa Bastani, Kimon Drakopoulos, Vishal Gupta, Jon Vlachogiannis, Christos Hadjicristodoulou, Pagona Lagiou, Gkikas Magiorkinis, Dimitrios Paraskevis, Sotirios Tsiodras** for their paper, “Deploying a Reinforcement Learning System for COVID-19 Testing at the Greek Border.”

The runner-up and finalists were:

- Runner up: Hussein El Hajj, Douglas Bish, Ebru Bish, Denise M. Kay for their paper “Novel Pooling Strategies for Genetic Testing, with Application to Newborn Screening.”
- Finalist: Justin J. Boutilier, Jónas Oddur Jónasson, Erez Yoeli for their paper “Improving Tuberculosis Treatment Adherence Support: The Case for Targeted Behavioral Interventions.”
- Finalist: Nasrin Yousefi, Timothy Chan, Yusuf Shalaby, Maria Eberg, Katharina Forster, Claire Holloway, Luciano Ieraci for their paper “An Inverse Optimization Approach to Measuring Clinical Pathway Concordance.”

Congratulations to the winners and all the finalists for this achievement! Many thanks to co-chairs Dimitris Bertsimas and Agni Orfanoudaki and to all the judges involved.



**About the Pierskalla Best Paper Award:** The Pierskalla Award recognizes research excellence in the field of health care management science. The award includes a \$1,000 honorarium for the

best paper presented in a Health Applications Section sponsored session at the annual INFORMS conference. The award is named after Dr. William Pierskalla to recognize his contribution and dedication to improving health services delivery through operations research.

Dr. Pierskalla is a Distinguished Professor Emeritus at the Anderson School at UCLA and the Ronald A. Rosenfeld Professor Emeritus, The Wharton School, University of Pennsylvania, and serves as an editor on numerous operations research journals.

## 2021 Sanjay and Panna Mehrotra Research Excellence Award

As announced at the HAS business meeting, the 2021 Sanjay and Panna Mehrotra Research Excellence Award went to **David Papp** for significant contributions to the practice of health applications through operations research (OR) and management science (MS) modeling and methodologies. His research is on optimization and delivery of radiotherapy treatments.



The finalists were:

- Jonas Oddur Jonasson from MIT for his paper “Redesigning Sample Transportation in Malawi Through Improved Data Sharing and Daily Route Optimization.”
- Vishal Ahuja from Southern Methodist University for his paper “An Operational Approach for Improving Outcomes of High-risk Patients.”

Congratulations to the winner and both finalists! Many thanks to chair Julie Higle and committee members Brian Denton, Paul Griffin, and Lisa Maillart.

**About the Sanjay and Panna Mehrotra Research Excellence Award:** The Sanjay and Panna Mehrotra Research Excellence Award recognizes a mid-career researcher for significant contributions to the practice of health applications through operations research (OR) and management science (MS) modeling and methodologies. The award is named after Professor Sanjay Mehrotra and his wife, in recognition of Professor Mehrotra’s contributions and dedication to translating OR/MS modeling and methodology research to practice so as to improve the quality and efficiency of healthcare systems, and will be presented at the Health Applications Society Business Meeting at the INFORMS annual meeting. Dr. Mehrotra is a professor in the Department of Industrial Engineering and Management Sciences at Northwestern University, and served on the Editorial Board of numerous operations research journals.

## **2022 INFORMS HAS Awards and Deadlines**

### **2022 Bonder Scholarship in Applied Operations Research in Health Services**

Committee chair: Hadi El-Amine

Submission deadline: June 30, 2022

Applicants will be notified with the results of the competition before September 2022.

### **2022 Pierskalla Award**

Committee co-chairs: Andrew Li and Kyra Gan

Submission deadline: June 24, 2022

The winning paper will be announced at the HAS business meeting at the 2022 INFORMS Annual Meeting.

### **2022 Sanjay and Panna Mehrotra Research Excellence Award**

Committee chair: Paul Griffin

Submission deadline: July 15, 2022

Up to three finalists will be selected and invited to present their work at the 2022 INFORMS Annual Meeting in a session sponsored by the Health Applications Society and devoted to the competition.



## HAS Virtual Seminar Series

The INFORMS Health Applications Society (HAS) is continuing its exciting online seminar series for better engaging our community by bringing together researchers working on healthcare operations, medical decision making, health systems and policy, and healthcare analytics.

The advisory board for the year 2022 includes Timothy Chan (University of Toronto), Maria Mayorga (North Carolina State University), and Mark Van Oyen (University of Michigan).

The seminar is held on the fourth Friday of each month from January to September. Since its inaugural event in June 2021, the seminar series has hosted presentations given by Nobel Laureates, INFORMS Fellows, leading researchers in healthcare, as well as prestigious award winners in the broad healthcare research field.

Several extraordinary speakers have already committed to upcoming seminars during summer months:

- May 27, *Professor Oguzhan Alagoz*, University of Wisconsin-Madison
- June 24, *Professor Vishal Gupta*, USC Marshall School of Business, the winner of the 2021 Pierskalla Award
- July 22, *Professor Carri Chan*, Columbia Business School

Visit our home page for the seminar series at <https://connect.informs.org/healthapplications/home> and stay tuned!

Please also join our Google Group (<https://groups.google.com/g/hasseminarseries>) or subscribe to our Mailing List (<https://forms.gle/49iDWihs5pU5RVwq6>) to receive the latest announcement on the upcoming seminars! If you have any questions, please feel free to contact us at [hasseminarseries@gmail.com](mailto:hasseminarseries@gmail.com), and Twitter @informshas.

Thank you for your interest from the organizing committee: Sanjay Mehrotra (Northwestern), Sait Tunc (Virginia Tech), and Qiushi Chen (Penn State).

## Soliciting HAS Student Liaison

### 2022-2023 Academic Year

We are looking for self-driven graduate students who would like to take a leadership position working with the HAS board as a student liaison in various functions, including planning, outreach, and engagement with HAS student members through various initiatives and activities. Sample activities include (i) coordinating the HAS flash job talk session at INFORMS 2022, (ii) managing social media accounts to promote HAS activities such as the Virtual Seminar Series, (iii) reaching out to student chapters to increase awareness of HAS, (iv) creating and distributing a student-focused HAS newsletter multiple times a year. We also welcome new ideas in the above functions. This will be a great opportunity for graduate students to be involved with our professional community. An example of the newsletter the team published can be found at [https://higherlogicdownload.s3.amazonaws.com/INFORMS/646f1fc2-77c4-4730-ae48-bf7da3caba2b/UploadedImages/HAS\\_Students\\_Newsletter\\_.pdf](https://higherlogicdownload.s3.amazonaws.com/INFORMS/646f1fc2-77c4-4730-ae48-bf7da3caba2b/UploadedImages/HAS_Students_Newsletter_.pdf).

Interested students are invited to apply through email to [HAS.INFORMS2021@gmail.com](mailto:HAS.INFORMS2021@gmail.com) and include in the email the following items **by May 30, 2022**:

1. A one-paragraph bio;
2. A paragraph on why you are interested in this position, and your ideas of how to better engage student members, if any;
3. Contact information (name, title, email and a phone number) of a faculty reference.

If you have any questions, please do not hesitate to send an email to Pengyi Shi at [shi178@purdue.edu](mailto:shi178@purdue.edu)

**Also shout out to our four awesome liaison in 2021-2022 Academic Year:**



Yanhan (top left), Jeremy (top right), Jade (bottom left), and Jaeyoung (bottom right).

\*Jeremy Watts, PhD student, the University of Tennessee; gkm819@vols.utk.edu.

\*Yanhan Tang, PhD Student, Carnegie Mellon University; yanhanta@andrew.cmu.edu.

\*Jade Xiao, PhD student, Georgia Tech; jadexiao@gatech.edu.

\*Jaeyoung (Jaey) Kim, PhD student, Clemson University; jaeyouk@clemson.edu.

## **Health Applications Society Officers**

### **2022 Officers**

Stephen Chick (President)  
Timothy Chan (Vice President/President-Elect)  
Maria Mayorga (Past President)  
Pooyan Kazemian (Treasurer, 1<sup>st</sup> year of term)  
Shan Liu (Secretary, 1<sup>st</sup> year of term)  
Pengyi Shi (Communications & Outreach Coordinator)  
Jennifer Mason Lobo (Council Member)  
Qiushi Shen (Council Member)  
Sait Tunc (Council Member)

### **2021 Officers**

Maria Mayorga (President)  
Stephen Chick (Vice President/President-Elect)  
Mark Van Oyen (Past President)  
Sze-chuan Suen (Treasurer, 2nd year of term)  
Hadi El-Amine (Secretary, 2nd year of term)  
Pengyi Shi (Communications & Outreach Coordinator)  
Jennifer Mason Lobo (Council Member)  
Qiushi Shen (Council Member)  
Sait Tunc (Council Member)