

# THE BRIEFING

---

The Newsletter of the INFORMS Section on Public Programs, Service, and Needs (SPPSN)  
Volume 4, No. 1 • June 2013

## Welcome from the President

### ***Words from Ozlem Ergun, President of SPPSN***

I would like to welcome you all to the INFORMS Section on Public Programs, Services and Needs! I am hoping that 2013 will bring another successful year with a scheduled set of activities and membership growth. I share the same vision with our past presidents that SPPSN should be the core gathering place of academicians and practitioners in operations research and management science with an interest in public impact. With this in mind, we are sponsoring clusters in three upcoming conferences: INFORMS Healthcare, EURO-INFORMS Joint International Meeting, and INFORMS Annual Meeting. I would like to take this opportunity to thank Mariel Lavieri, Burcu Balcik, David Hutton and Robert Hampshire for organizing these clusters. SPPSN best paper competition is also standing on firm ground with a healthy number of strong submissions in 2012. A special thanks goes to Jeremie Gallien and Julie Swann for co-chairing the prize committee this year. Last but not the least our lunch/business meeting is set for Monday October 7th during the INFORMS Annual Meeting.

I encourage you all to get involved by attending our sessions, sending in an entry to the paper competition and coming and celebrating the year with us during our lunch at INFORMS. Please contact Erica Gralla ([egralla@gwu.edu](mailto:egralla@gwu.edu)) with any news of interest to our members, and contact any one of the officers with ideas for new initiatives and how to improve the existing ones. Also, don't forget to take along a friend to any of our events and help us recruit new members!

---

### ***In this issue:***

- SPPSN at the INFORMS Annual Meetings
  - Synopsis of 2012 Annual Meeting
  - Organizing for 2013 Annual Meeting
- SPPSN Best Paper Competition
  - Results from 2012 competition
  - 2013 Call for Submissions
- SPPSN at EURO/INFORMS 2013
- SPPSN at INFORMS Healthcare 2013
- Conferences, Journals, Books, and Calls
- About SPPSN
- From the Editor

# SPPSN at the INFORMS Annual Meetings

## ***Synopsis of SPPSN activities at the 2012 Annual Meeting***

SPPSN sponsored or co-sponsored a total of 34 sessions at the 2012 INFORMS Annual Meeting in Phoenix. The sessions featured talks on a wide range of topics, including voting and election processes, sustainability, homeland security, and humanitarian logistics. The sessions were well-attended and sparked a number of fruitful discussions. The officer team extends a sincere thanks to the topic area coordinators, session chairs, and presenters for their efforts in delivering an outstanding group of sessions.

The section also held a business luncheon at the conference to facilitate networking, recognize the SPPSN Best Paper Award finalists, and discuss current and future activities of the section. The luncheon was attended by 76 people, including more than 15 members of the editorial boards of several journals that publish SPPSN-related work. The attendance of these guests helped generate informative conversations about publishing OR/MS work with public impact. (Provided by Jessica Heier-Stamm)

## ***Organizing for the 2013 Annual Meeting***

Sessions have been organized for the 2013 INFORMS Annual Meeting. Topic coordinators are listed below. Cluster co-chairs are Robert C Hampshire (hamp@cmu.edu) and David Hutton (dwhutton@umich.edu). We plan to have sessions in the following areas, broadly defined:

- Disaster relief and humanitarian logistics
- Public/Global health
- Community service
- Health policy
- Public programs and services such as fire and emergency medical services
- Criminal justice
- Homeland security
- Problems in real-world OR

Make sure to look for our talks at the Annual Meeting on in Minneapolis, MN, October 6-9, 2013.

Keep the following dates in mind:

- May 15 – Abstract submission deadline
- June 15 – Interactive/poster submission deadline
- August 12 – Authors' deadline for final abstract changes
- September 3 – Early registration deadline and hotel reservation cut-off date

# SPPSN Best Paper Competition

## ***Results from 2012 SPPSN Best Paper Competition***

The winners of the second SPPSN best paper competition were announced at the SPPSN business meeting at the 2012 INFORMS Annual Meeting in Phoenix. The awardees were:

### First place

Jeremie Gallien, Zachary Leung, and Prashant Yadav, "Rationality and Transparency in the Distribution of Essential Drugs in Sub-Saharan Africa: Analysis and Design of an Inventory Control System for Zambia"

### Second place

Timothy Chan, Derya Demirtas, and Roy H. Kwon, "Optimizing the Deployment of Public Access Defibrillators"

### Honorable Mention

Prem Swaroop and Michael O. Ball, "A Consensus-Building Mechanism for Setting Service Expectations in Air Traffic Flow Management"

Luyi Gui, Atalay Atas, Ozlem Ergun, and L. Beril Toktay, "Fair and Efficient Implementation of Collective Extended Producer Responsibility Legislation"

### Finalists

Krishnan Anand and Francois Giraud-Carrier, "Pollution Regulation and Production"

Douglas King, Sheldon H. Jacobson, and Edward C. Sewell, "The Geo-Graph in Practice: Creating United States Congressional Districts from Census Blocks"

The judging committee included:

- Michael Johnson, University of Massachusetts Boston, chair
- Julie Swann, Georgia Institute of Technology, chair
- Renata Konrad, Worcester Polytechnic Institute
- Jun Zhuang, University of Buffalo
- Michael Fry, University of Cincinnati

# SPPSN Best Paper Competition

## **2013 Best Paper Award: Call for Submissions**

The INFORMS Section on Public Programs, Services and Needs is sponsoring an award for best paper presented at the INFORMS fall national conference in Minneapolis, October 6 -- 9, 2013. This award is intended to encourage journal-quality research in all of the disciplines and application areas represented within SPPSN, and to build a tradition of scholarly exchange of knowledge at our research meetings beyond attendance at sessions. Participation is open to all INFORMS members, whether students, academics or practitioners. Each submission must be associated with a presentation at the fall national conference. Subject to receiving qualified submissions, one first prize of \$250, one second prize of \$100 and an honorable mention will be awarded at the SPPSN business meeting, to take place at the INFORMS fall 2013 conference.

The submission process consists of the following:

- A nomination letter of less than three pages explaining the relevance of the paper to SPPSN's mission and the paper's significance to research and/or practice, including an abstract of the paper. (Self-nominations are allowed.) If practical impact is claimed for the research, it is advised to also submit another letter from a relevant practitioner who is preferably not a co-author, mentioning name, title, organizational affiliation and full contact information and attesting to the practical value of the work. Nomination letters are due by May 31, 2013.
- The committee will invite a selection of nominations to submit a full paper. Notifications are anticipated to be sent by July 1, 2013.
- Full drafts of papers are due by August 2, 2013.

Submission requirements are:

- Full papers (by request of committee) should follow the formatting guidelines of an INFORMS print journal, e.g., formatted to one-inch margins on all sides, a font size of at least 11 point, and at least 1.5 line spacing.
- The paper should be no longer than 32 pages long (including paper text, figures and tables) plus references.
- The paper under consideration for this prize shall not have not been published elsewhere.

Details of this award will be posted on the SPPSN website <http://www.informs.org/Community/PPSN>.

Any inquiries about this award can be made to:

Julie L. Swann  
SPPSN Past President and co-chair, Best Paper  
committee  
Georgia Institute of Technology  
[julie.swann@isye.gatech.edu](mailto:julie.swann@isye.gatech.edu)  
+1 404-385-3054

Jérémie Gallien  
co-chair, Best Paper committee  
London Business School  
[jgallien@london.edu](mailto:jgallien@london.edu)  
+44 (0)20 7000 8809

## SPPSN at EURO/INFORMS 2013

SPPSN has organized sessions at the EURO/INFORMS 2013 conference in Rome, Italy, July 1-4, 2013.

Wednesday, 10:30-12:00, Room: R19-3: Humanitarian Logistics and Disaster Response

Session Chair: Burcu Balcik

**Dynamic Team Deployment in Urban Search and Rescue**

Elise Miller-Hooks (University of Maryland)

**Stochastic Optimization Models for the Last Mile Distribution Network Design Problem in Humanitarian Relief**

Nilay Noyan (Sabanci University), Burcu Balcik (Ozyegin University), Semih Atakan (Sabanci University)

**The Post-Disaster Debris Clearance Problem with Incomplete Information**

Ozlem Ergun (Georgia Tech), Melih Celik (Georgia Tech), Pinar Keskinocak (Georgia Tech)

**A Continuous Approximation Approach for Assessment Routing in Disaster Relief**

Burcu Balcik (Ozyegin University), Karen Smilowitz (Northwestern University), Michael Huang (Northwestern University)

Wednesday, 12:30-14:00, Room: R19-3: Global Health

Session Chair: Dionne Aleman

**Improving HIV early infant diagnosis (EID) supply chains in sub-Saharan Africa**

Jonas Oddur Jonasson (London Business School), Sarang Deo (Indian School of Business), Jérémie Gallien (London Business School)

**The Global Fund's Grant Disbursement Process and Central Drug Stockout Risks in Africa: Model and Analysis**

Iva Rashkova (London Business School), Jérémie Gallien (London Business School), Prashant Yadav (London Business School)

**Appraisal of critical success factors for controlling infectious disease outbreaks using the DEMATEL method**

Thomas Dasaklis (University of Piraeus), Costas Pappis (University of Piraeus)

**Graph theory based mitigation strategies and measures for pandemic disease spread**

Dionne Aleman (University of Toronto), Mario Ventresca (University of Toronto)

Wednesday, 14:30-16:00, Room: R19-3: Public/Nonprofit Supply Chains

Session Chair: Mohammad Moshtari

**Designing Intervention Strategy for Public-Interest Goods**

Ece Zeliha Demirci (Bilkent University), Nesim Erkip (Bilkent University)

**Factors Influencing Collaboration Among International Humanitarian NGOs: An Empirical Analysis**

Mohammad Moshtari (University of Lugano)

**Locating vulnerable temporary depots prior to a natural disaster**

Anastasia Nikolaeva (University at Buffalo), Rajan Batta (University at Buffalo), Jun Zhuang (University at Buffalo)

## SPPSN at INFORMS Healthcare 2013

SPPSN has organized several sessions at the INFORMS Healthcare 2013 conference, June 23-26, 2013.

### [SPPSN Sessions](#)

Chair: Mariel Lavieri, University of Michigan

#### [Monday Jun 24, 08:30 - 10:00 : Joint Session HAS/SPPSN: Preferences and Risk Management in Health Care](#)

Chair: Mehmet Ayyaci, University of Texas-Dallas

##### **Priority-driven Resource Allocation in Response to Mass-casualty Events**

Presenting author: Alex Mills, Assistant Professor, Indiana University, Kelley School of Business

##### **The Role of Patient Preferences in Managing Post-mammography Diagnostic Decision**

Presenting Author: Mehmet Ayyaci, Assistant Professor, University of Texas-Dallas

##### **Risk-Sensitive Treatment Decisions to Minimize Coronary Heart Disease Events**

Presenting Author: Gregory Schell, PhD Candidate, University of Michigan

#### [Monday Jun 24, 15:30 - 17:00 : Joint Session CORS/SPPSN: Queueing Models in Emergency Medical Services \(EMS\) Systems](#)

Chairs: Arman Ingolfsson and Bora Kolfal, University of Alberta

##### **Modeling Red and Yellow Alert Durations for Ambulance Systems as Partial Busy Periods**

Presenting Author: Amir Rastpour, PhD Candidate, University of Alberta

##### **Service Systems with Adaptive Servers**

Presenting Author: Mohammad Delasay, PhD Candidate, University of Alberta

##### **Optimizing Compliance Tables for Ambulance Repositioning**

Presenting Author: Ramon Alanis, Sr. Health Operations Researcher, Alberta Health Services

#### [Tuesday Jun 25, 08:30 - 10:00 : Joint Session SPPSN/Health Operations: OR Applications in the Vaccine World](#)

Chairs: Rubén Proaño, Rochester Institute of Technology, and Osman Ozaltin, University of Waterloo

##### **Optimal Design of the Annual Influenza Vaccine with Manufacturing Autonomy**

Presenting Author: Osman Ozaltin, University of Waterloo

##### **Infectious Disease Mitigation: From Contact Networks to Public Policies**

Presenting Author: Mario Ventresca, Postdoctoral Fellow, University of Toronto

##### **Vaccine Prioritization: A Multi-attribute Group Decision Making Problem with Heterogenous Information**

Presenting Author: Rubén Proaño, Assistant Professor, Rochester Institute of Technology

##### **HERMES: Simulation Modeling of Country Vaccine Supply Chains Throughout the World**

Presenting Author: Bruce Lee, Associate Professor, University of Pittsburgh

#### [Tuesday Jun 25, 10:30 - 12:00 : Joint Session MDM/SPPSN: Health Policy Analysis](#)

Chair: David Hutton, University of Michigan

##### **Impact of Disease Surveillance Systems in the Epidemiologic Characterization of Pandemic Outbreaks**

Presenting Author: Eric Meisheri, Research Assistant, Western Michigan University

##### **Modeling the Influence of Human Behavior on the Spread of Influenza**

Presenting Author: Elnaz Karimi, Student, Concordia University

#### [Tuesday Jun 25, 13:30 - 15:00 : Issues in Public Health](#)

Chair: Banafsheh Behzad, University of Illinois at Urbana-Champaign

**Modeling the Growing Cost Burden of Anti-Vascular Endothelial Growth Factors For Ophthalmologic Use**

Presenting Author: David Hutton, Assistant Professor, University of Michigan

**RHEA: Agent-Based Modeling to Help Infectious Disease Control in a Health System**

Presenting Author: Bruce Lee, Associate Professor, University of Pittsburgh

**Quantifying the Association between Obesity, Automobile Travel, and Caloric Intake**

Presenting Author: Banafsheh Behzad, PhD Candidate, University of Illinois at Urbana-Champaign

**Dynamic, Robust Location Decisions to Improve Cholera Treatment Accessibility in Haiti**

Presenting Author: Jessica Heier Stamm, Kansas State University

---

## Conferences, Journals, Books, and Calls

### ***Health and Humanitarian Logistics Conference, Kuala Lumpur, June 4-5***

The 2013 Health & Humanitarian Logistics Conference was held June 4-5 in Kuala Lumpur, Malaysia. The conference brought together academics, humanitarian and health workers, donors, and other relevant stakeholders for two days of panel discussions, workshops, and conversations about the current state and future vision for health and humanitarian logistics.

More information: <http://www.misi.edu.my/humlog2013/>.

### ***Book: Equitable Resource Allocation***

Equitable Resource Allocation: Models, Algorithms, and Applications by Hanan Luss

Wiley, ISBN 1118054687

The book primarily focuses on models with a lexicographic minimax (maximin) objective with applications in diverse areas including communication and transportation networks, content distribution, emergency services, healthcare services, and more. The book is published by Wiley and is also available on Amazon.

Wiley link: <http://www.wiley.com/WileyCDA/WileyTitle/productCd-1118054687.html>

### ***Call for Papers: DSJ Special Issue on "Supply Chain Decisions in Governmental Organizations"***

Focused Issue co-Senior Editors:

Geraldo Ferrer (Naval Postgraduate School, Monterey, CA); Gyula Vastag (Pannon University, Veszprém, Hungary); and Shi W. Lee (Pusan National University, Busan, Korea).

Submission Deadline: *extended to* July 26, 2013

More information: <http://onlinelibrary.wiley.com/doi/10.1111/deci.12015/abstract>

### ***Call for Papers: POM Special Issue on "Socially Responsible Operations"***

Guest Editors: ManMohan S. Sodhi and Christopher S. Tang

Deadline for submission: September 30, 2013

More information: <http://onlinelibrary.wiley.com/doi/10.1111/j.1937-5956.2012.01378.x/abstract>

### ***IFORS Prize for OR in Development***

The IFORS Prize will be awarded during the 20th<sup>th</sup> Triennial conference on "The Art of Modeling" to be held in Barcelona, Spain from 13-18 July 2014. This competition has been held for over 25 years, and recognizes outstanding, and relevant OR work carried out in developing countries.

Chair: Prof. Andres Weintraub, Dept. of Industrial Engineering, University of Chile, [aweintra@dii.uchile.cl](mailto:aweintra@dii.uchile.cl)

Last date of submission of the full paper: November 30, 2013

More information: <http://ifors.org/web/ifors-prize-for-or-in-development-2014/>

# About the INFORMS Section on Public Programs, Services and Needs

The Section for Public Programs, Service, and Needs (SPPSN) is the INFORMS subdivision dedicated to, in the words of the INFORMS slogan, “doing good with good OR.” The section furthers the use of operations research and management science in the following areas:

- *Public Policy* – improving governmental decision-making at the legislative and strategic levels.
- *Public Programs* – improving the management of government programs, services and operations.
- *Public Safety* – improving decision-making in support of homeland security, law enforcement, emergency preparedness, and disaster response.
- *Public Service* – supporting community development and public service organizations, and encouraging members of the ORMS professions to volunteer their know-how in public service causes.
- *Public Needs* – Improving logistics and other national and international programs to address humanitarian needs.

The section carries out its mission by sponsoring presentations at INFORMS national meetings and providing publicity for ORMS conducted in the public and civic spheres.

SPPSN was formed from a 2009 merger of three efforts devoted to “doing good with good OR”. The first was the Public Programs and Processes Section (PPPS), which was the INFORMS section devoted to OR conducted in the areas of public policy, public programs and public safety. The second was an initiative to start an INFORMS forum devoted to community operations research and the third was an initiative to start an INFORMS forum devoted to supporting humanitarian assistance. The three groups, in consultation with the INFORMS Subdivision Council, decided that the best approach was to have a single expanded section that would broadly address ORMS conducted in the public and civic spheres.

Membership is \$10 for INFORMS members, \$15 for non-members, and \$5 for students.

## 2013 Officers:

- President: **Ozlem Ergun**, Georgia Institute of Technology, [oergun@isye.gatech.edu](mailto:oergun@isye.gatech.edu)
- President-Elect: **Laura McLay**, University of Wisconsin-Madison, [lmclay@wisc.edu](mailto:lmclay@wisc.edu)
- Secretary/Treasurer: **Mariel Lavieri**, University of Michigan, [lavieri@umich.edu](mailto:lavieri@umich.edu)
- Senior Vice President of Programs: **Jessica Heier-Stamm**, Kansas State University, [jlhs@k-state.edu](mailto:jlhs@k-state.edu)
- Junior Vice President of Programs: **Robert Hampshire**, Carnegie Mellon, [hamp@andrew.cmu.edu](mailto:hamp@andrew.cmu.edu)
- Vice President of Communications: **Erica Gralla**, George Washington University, [egralla@gwu.edu](mailto:egralla@gwu.edu)



## From the editor

I hope you have enjoyed this spring/summer edition of the SPPSN newsletter. I would like to invite you to contribute to the next edition, which will be published in the fall. Please share news of achievements, awards, publications, calls for papers, special issues, and relevant conferences. Please also feel free to provide feedback on the content or format of our newsletter and communication from SPPSN in general.

I would like to take this opportunity to thank Laura McLay, who served as Vice President of Communications and editor of this newsletter for several years. She has provided a strong foundation on which to build our SPPSN community.

Please take advantage of the resources provided on the [SPPSN website](#), including past issues of the newsletter, upcoming events, and information about our best paper competition. Feedback on this or any other aspect of SPPSN is always welcome.

Sincerely,

Erica L. Gralla  
egralla@gwu.edu