

## CALL FOR PAPERS

SBP-BRiMS is an interdisciplinary computational social science conference focused on both modeling complex socio-technical systems and using computational techniques to reason about and study complex socio-technical systems. The participants in this conference take part in forming the conversation on how computation is shaping the modern world and helping us to better understand and reason about human behavior. Both papers addressing basic research and those addressing applied research are accepted. All methodological approaches are encouraged; however, the vast majority of papers use computer simulation, network analysis or machine learning as the method of choice in addressing human social and behavioral activities. At the conference, these paper presentations are complemented by data science challenge problems, demonstrations of new technologies, and a government funding panel.

Submissions are solicited on research issues, methodologies, theories, and applications. Topics of interests include but are not limited to the following:

### **Advances in Sociocultural & Behavioral Process Modeling**

- Group formation, interaction, and/or evolution
- Collective action and governance
- Information, belief, technology of disease diffusion
- Public opinion representation, identification and modeling
- Information diffusion
- Psycho-cultural situation awareness
- Intelligent agents and avatars/adversarial modeling
- Models of reasoning and decision making
- Performance prediction, assessment, & skill monitoring/tracking
- Intelligent tutoring systems
- Cognitive robotics and human-robot interaction
- Human behavior issues in model federations
- Validation and analysis techniques for social behavioral models

### **Information, Systems, and Network Science**

- Data mining on social media platforms
- Diffusion and other dynamic processes over networks
- Inference of network topologies and changes over time or space
- Analysis of link formations and link types
- Detection of communities and other types of structures in networks
- Analysis of high-dimensional networks
- Analytics for social and human dynamics

## **Military and Intelligence Applications**

- Group formation and evolution in the political context
- Networks and political influence
- Group representation and profiling
- Reasoning about terrorist group behaviors and policies towards them
- Cyber and attribution
- Social Cyber-Security applications
- Social simulation for military training
- Cyber diplomacy
- Computational methods to transform traditional GEOINT and open source data into spatio-temporal information describing events and activities

## **Applications for Health and Well-Being**

- Data science applied to health behavior
- Modeling of public health and health care policy and decision making
- Modeling of behavioral aspects of infectious disease spread
- Modeling of behavioral aspects of prevention and treatment for chronic diseases (e.g., cancer, obesity, asthma)
- Intervention design and modeling for behavioral health

## **Example of Other Applications of Interest to the Community**

- Economic applications of behavioral and social prediction
- Model federation, integration, verification, or validation
- Evolutionary computing and optimization
- Education, training, professional development and workforce training in modeling and simulation

## **CHALLENGE PROBLEMS:**

There will be two data science challenges:

1. Opioids
2. Disinformation.

Additional details are posted on the conference website, [SBP-BRiMS.org/challenge](http://SBP-BRiMS.org/challenge). The deadline for submission is 17-May-2019.

## **IMPORTANT DATES:**

Regular Paper Submission: **22-February-2019**

Author Notification: **22-March-2019**

Final Version Submission for Regular Papers: **12-April-2019**

Challenge Problem Paper Submission: **17-May-2019**



**2019 International Conference on Social Computing, Behavioral-Cultural  
Modeling & Prediction and Behavior Representation in  
Modeling and Simulation**  
George Washington University, 800 22nd St NW, Washington, DC 20052

All accepted papers require confirmation of conference registration when uploading final versions. Each accepted paper requires a separate registration.

All regular papers will be a maximum of 10 pages including all figures, tables and references. See <http://sbp-brims.org/cfp> for more information on formatting

## **AWARDS:**

All papers are qualified for the Best Paper Award. Papers with student first authors will be considered for the Best Student Paper Award. Those receiving these awards will be invited to publish an extended version in a special issue of the journal Computational and Mathematical Organization Theory. Submission of a paper to the conference means that the authors consent to send an extended version to the special issue, should they receive one of the awards. Papers receiving the best paper awards, the best student paper award, winner of the opioid challenge, and winner of the disinformation challenge will then send an extended version of their paper for publication in the best of SBP-BRiMS 2019 special issue.