

# **The 2018 INFORMS Workshop on Data Science**

**Hosted by INFORMS College on Artificial Intelligence**

**Phoenix, Arizona**

**November 3, 2018**

<http://2018.dsconf.org/>

INFORMS Workshop on Data Science is a premier research conference dedicated to developing data science theories, methods, and algorithms to solve challenging and practical problems that benefit business and society at large. The workshop invites innovative data science research contributions that address business and societal challenges from the lens of statistical learning, data mining, machine learning, and artificial intelligence. The workshop invites original research addressing challenges in marketing, finance, and supply chain applications to problems in healthcare, energy, cybersecurity, social network services, privacy, credibility, etc. Contributions on novel methods may be motivated by insightful observations on the limitations of existing data science methods to address practical challenges, or by studying entirely novel data science problems. Research contributions on theoretical and methodological foundations of data science, such as optimization for machine learning and new algorithms for data mining, are also welcome.

## **Research Contributions May Include:**

- Models for data science and predictive analytics
- Performance measures in data science with important practical implications
- Computational methods for big data, text mining, and natural language processing
- Innovative methods for social network analysis
- Data acquisition, cleaning, integration, and best practices
- Data-driven methods for cybersecurity and data privacy problems
- Prediction of rare events, anomaly detection, and fraud detection
- Methods for induction and inference with missing values
- Data-driven methods for effective risk management
- Data science for healthcare: chronic disease management, preventative care, etc.
- Data science for industrial applications: energy, education, finance, supply chain, e-commerce, etc.
- Large-scale recommendation systems and social media systems
- Visualization analytics for business data
- Mobile analytics
- Experiences with big data project deployments
- Deep learning and business applications of AI

## **Important Dates:**

Paper submission Open: May 7, 2018

Paper submission Deadline: July 15, 2018

Notification of Acceptance: August 20, 2018

We look forward to receiving your paper submissions, and to seeing you at the conference!

### **Information for Authors:**

- Maximum of 10 single-spaced pages, printable on 8.5 x 11-inch paper
- 12-point font with one-inch margins on four sides
- Blind submissions
- **INFORMS Workshop on Data Science and INFORMS do not take ownership of paper copyrights.**

### **Organizing Committee:**

#### Honorary Chairs

Olivia Sheng, University of Utah  
Alexander S. Tuzhilin, New York University

#### Conference Chairs

Weiguo (Patrick) Fan, University of Iowa  
Maytal Saar-Tsechansky, University of Texas, Austin  
Raghu Santanam, Arizona State University

#### Program Chairs

Ting Li, Erasmus University Rotterdam  
Xiaobai (Bob) Li, University of Massachusetts Lowell  
Balaji Padmanabhan, University of South Florida

#### Publicity Chairs

Syam Menon, University of Texas at Dallas  
Paul Pavlou, Temple University  
Galit Shmueli, National Tsing Hua University  
Qiang Ye, Harbin Institute of Technology  
Kang Zhao, University of Iowa  
Leon Zhao, City University of Hong Kong

#### Web Chair

Harry Wang, University of Delaware

#### Finance Chair

Alan Wang, Virginia Tech