



## CALL FOR PAPERS

### Special Issue of the Wiley journal *Risk Analysis* on “Engineering Risk Analytics”

#### Guest editors:

Desheng Dash Wu(corresponding) and James H. Lambert

Today’s economic development is highly correlated to risk analytics issues. The Malaysia Airlines Flight 370 incident, the rail accidents in Spain and Canada, industrial explosion in Tianjin, and others are recent examples in transportation engineering. Earthquakes, monsoons and hurricanes, and tsunamis are among the many terrifying and destructive natural disasters that can threaten humans in disaster engineering. Achieving effective risk management in engineering systems requires both innovative strategies and new analytical models. Data oriented analytics provides an alternative way to manage risks can help build a sustainable engineering system.

**Risk and analytics** has become an important topic in today’s more complex, interrelated global environment, replete with threats from natural, political, economic, and technical sources.

This call for papers of *Risk Analysis* on the theme of “Engineering Risk Analytics” is intended to present views and insights from researchers regarding risk and analytics in engineering. Authors are encouraged to submit both theoretical and applied articles addressing the theme of this special issue that demonstrably improve management of health, safety, and environmental (HS&E) risks, which are the main focus of *Risk Analysis*.

**Topics of Interest:** The special issue aims to collect submissions on data analysis algorithms and analysis methods that address the following key questions in HS&E:

- Descriptive analytics: What’s happening? What has changed recently?
- Predictive analytics: What will (probably) happen next if we don’t take new action?

- Causal analytics: What can we do about it? What will (probably) happen next if we take different actions?
- Prescriptive analytics: What should we do?
- Evaluation analytics: How well is it working? What effects have our actions or policies actually caused?
- Learning analytics: How might we do better? What potential improvements should we explore next? When should we stop exploring and evaluating and commit to a change to exploit what we have learned?
- Collaborative analytics: How can teams, organizations, distributed control hierarchies, etc. work together to coordinate and combine local sensing, deciding, acting, and learning to maximize global performance?
- Other issues that demonstrate solid accomplishments in applying risk analytics to improve risk management decisions

### **Paper submission:**

Submitted articles must not have been previously published or currently submitted for journal publication elsewhere. As an author, you are responsible for understanding and adhering to our submission guidelines. You can access them from <http://sra.org/sra-journal>, or at [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1539-6924](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1539-6924).

Please read these before submitting your manuscript. Each paper will go through a rigorous review process.

### **Important Dates**

Submission Deadline: **August 1, 2016**

First-Round Reviews: **December 1, 2016**

Tentative Publishing: **May 2017**

## **Guest editors:**

**Desheng Dash Wu** is the distinguished professor at University of Chinese Academy of Sciences and professor at Stockholm University, RiskLab Managing Director. His research interests focus on risk analysis, performance evaluation, and decision support system. He has published more than 100 journal papers appeared in such journals as *Risk Analysis*, *Decision Sciences*, *IEEE Transactions on Knowledge and Data Engineering*, *Omega*, *European Journal of Operational Research*, *Production and Operations Management*, *et al.* He has published 5 books with Springer publisher. He has served as editor/guest editors/chairs for several journals/conferences. The **special issues** he edited include those for *IEEE Transactions SMC Cybernets* (2015), *IEEE System Journal* (2015), *Production Planning and Control* (2009), *Computers and Operations Research* (2010), *Omega*(2015) and *Annals of Operations Research* (2010). He is an IEEE Senior Member and a member of PRMIA (the Professional Risk Managers' International Association) Academic Advisory Committee and steering committee member.

**James H. Lambert** has served on the faculty of the University of Virginia since 1996. He is the President-Elect of the Society for Risk Analysis ([www.sra.org](http://www.sra.org)). He is an author/coauthor of journal papers, book chapters, and conference proceedings addressing risk analysis and systems engineering. Sponsors of his research include the US Army Corps of Engineers, Virginia Department of Transportation, Federal Highway Administration, National Science Foundation, Department of Homeland Security, Department of Agriculture, National Aeronautics and Space Administration, Commonwealth of Virginia Multimodal Transportation Advisory Committee, Federal Aviation Administration, Virginia Telecommunications Industry Association, Sandia National Laboratories, Argonne National Laboratory, the Environmental Protection Agency, and others. He is the Area Editor for Engineering of the journal *Risk Analysis*. He is a founding Editor-in-Chief (with Dr. Igor Linkov) of the Springer journal *Environment Systems & Decisions*. He is a founding Associate Editor of the ASCE/ASME Journal of Risk and Uncertainty in Engineering Systems. He is a licensed professional engineer and a diplomate of the American Academy of Water Resources Engineers. He has served on organizing committees and program committees of several international conferences. He is a past Councilor of the Society for Risk Analysis, past chair of the Conferences and Workshops Committee, past chair of the Engineering and Infrastructure Specialty Group, and past President of the Decision Analysis & Risk Specialty Group. He has taught at the graduate and undergraduate level courses including multiobjective optimization, e-commerce systems evaluation, systems testing and reliability, integrated risk management, and systems integration. He has presented at numerous workshops and short courses and international conferences.