

Dear friends,

We would like to probe for interest from the SIPTA community, and invite contributions, for a special theme at the PSAM11-ESREL2012 conference (Helsinki, 25-29 June 2012; abstract submission deadline **31 July 2011**):

## **Treatment of Epistemic Uncertainty in Risk-Informed Decision Making**

As we all know, many approaches to epistemic uncertainty exist: Bayesian, robust Bayes, linear Bayes, lower previsions, credal sets, possibility theory, Dempster-Shafer theory, fuzzy sets, p-boxes, and interval-valued probabilities, just to name a few.

Undoubtedly, the epistemic uncertainty theme will certainly appeal to many of us. But even more, having this theme at PSAM11-ESREL2012 provides our community with an excellent opportunity to promote the use of imprecise probabilities to a very wide audience, including statisticians, risk analysts, and practitioners from various fields.

Obviously, as we all know, all these different models for epistemic uncertainty have their uses, depending on the particular application and computational demands. However, this increasing specialisation also threatens to isolate the mainstream reliability and risk analysis community from important developments in the treatment of epistemic uncertainty, which may have an impact on the outcomes of analyses.

Therefore, the general aim of the theme is to bring together researchers and practitioners from an as wide range of fields as possible, in order to discuss the issue of how epistemic uncertainty can be handled in decision making under risk. This follows onto a special issue of Reliability Engineering and System Safety that was devoted to alternative approaches to uncertainty representation in 2004, and a workshop that was held in Santa Monica in 2010.

The theme is divided into two categories: theory, and applications. Contributions---of theoretical nature, applied nature, or both---that illustrate the practical impact of the treatment of epistemic uncertainty on decision making are particularly welcome. Essentially, we hope to address the question: "OK, these approaches are interesting, but does all of this actually make any practical difference in real-world decisions?"

If this sounds like your cup of tea, and you plan to make a contribution, please contact Dana, Scott, and/or Matthias (contact information below) as soon as possible.

### **Important dates**

Abstracts Submission Deadline	<b>31 July 2011</b>
Notification to Authors	30 September 2011
Full Paper Submission Deadline	30 January 2012
Early Registration Deadline	30 March 2012
Conference	25–29 June 2012

### **Further Details**

For further details about (pre)registration, abstract and paper submission, scientific and cultural programme, programme committee, please consult the PSAM11-ESREL2012 web site at

<https://www.psam11.org/www/fi/>

### **Questions**

Any questions about the epistemic uncertainty theme can be addressed to:

- Dana Kelly <[Dana.Kelly@inl.gov](mailto:Dana.Kelly@inl.gov)> (general lead)
- Scott Ferson <[sandp8@gmail.com](mailto:sandp8@gmail.com)> (applications lead)
- Matthias Troffaes <[matthias.troffaes@gmail.com](mailto:matthias.troffaes@gmail.com)> (theory lead)