

### 8<sup>th</sup> SIPTA Summer School:

The 8th SIPTA Summer School will take place in Oviedo (Spain) from 24 to 28 of July, 2018. It will introduce both the main theoretical aspects of imprecise probability models and in particular belief functions, as well as their applications on machine learning, decision making and engineering. Leading specialists in these different aspects of imprecise probabilities will lecture on the main concepts and techniques associated to their area of expertise, in a friendly environment favouring interaction between participants.

#### **Topics and lectures:**

Introduction to imprecise probabilities. Inés Couso and Enrique Miranda.

**Graphical models and machine learning**. *Cassio de Campos*.

**Decision making with imprecise probabilities**. *Matthias Troffaes*.

**Imprecise probabilities in engineering**. *Scott Ferson*.

Belief functions. Sébastien Destercke.

## **Imprecise Probabilities:**

Often, uncertainty is modelled by a probability distribution, and treated using techniques from probability theory. However, when information is scarce, vague, or conflicting, a unique probability distribution may be hard to identify. In that case, imprecise probability aims to represent the really available knowledge, and provides tools to model and work with weaker states of information. It includes both qualitative models (comparative probability, partial preference orderings, etc.) and quantitative models (interval-valued probabilities, convex sets of probability measures, upper and lower previsions, belief functions, possibility measures, etc.).

#### Collocation with WPMSIIP'2018:

The school is collocated with the 11th workshop on Principles and Methods of Statistical Inference with Interval Probability (WPMSIIP'2018), that will take place between July 30 and August 1, 2018. In this workshop some of the leading experts in imprecise probabilities shall meet to discuss about some recent advances and ongoing work.

You can find further information about the workshop at http://bellman.ciencias.uniovi.es/~ssipta18/WPMSIIP.html

#### **Registration and Fee:**

For participating in the SIPTA Summer School 2018, send an email to <u>mirandaenrique@uniovi.es</u> with your personal data (name, date of birth, affiliation,...), a short CV, a reference contact and a small statement explaining your research interests. **Deadline: March 31, 2018.** 

The registration fee is 400€, and it includes:

-Accommodation in the America Student Residence, with arrival on July 23 and departure on July 28.

-The material used during the lessons.

-Coffee breaks and a social event.

For those participants who also want to stay at America Residence until August 2 to participate in WPMSIIP, the joint fee is 575€.

# http://bellman.ciencias.uniovi.es/~ssipta18