Preference Modeling and Preference Learning using Imprecise Probabilistic Approaches

Context   Preference modeling and learning has been studied for a long time and has recently gained a renewed interest due to the growing presence of systems handling preferences and rankings.

   As complete preferences and rankings are hard to obtain, there are lots of situations where preferences (observed or elicited) will be incomplete, partial, uncertain,. . . In such situations, Imprecise probabilistic approaches offer potentially interesting frameworks for learning, modeling, inference, and decision making. However, the advantages and limitations of using imprecise probabilistic approaches in such situations largely remains to be explored.

Topics   In this special session, we would therefore like to attract contributions dealing with the following issues:

Modeling Many models of decision making assume that all alternatives are comparable. However, even if one accepts this assumption, it is seldom the case that available information will allow us to specify a model that is complete in this sense. So what are good representations for such partial preferences specifications, and why?

Learning Observations of preferences and rankings are often incomplete and possibly biased (many observations for some parts of the problem domain, few for other parts). So how can we build a robust model?

Inference Given an imprecise-probabilistic preference model, or incomplete and biased observations, how do we make reliable predictions?

Decision making Given an imprecise-probabilistic preference model, or incomplete and biased observations, how do we make dependable decisions?

Scope   All contributions touching on one or more of these topics using imprecise-probabilistic approaches will be considered.

Instructions   Submissions should follow the EUROFUSE guidelines:

   eurofuse2013.uniovi.es/?Paper_Submission

Important dates

3 June 2013 — paper submission

18 July 2013 — notification of acceptance

2–4 December 2013 — conference

Organizers   Any question or request related to this special session can be addressed to one of the organizers:

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