Modeling Decision for Artificial Intelligence (MDAI 2006)

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■ In this document we report on the MDAI 2006 conference that was held in Tarragona (Catalonia, Spain) in April 2006.

The aim of the Modeling Decision for Artificial Intelligence (MDAI 2006) conference was the integration of decision models and information-fusion tools (aggregation operators) in AI applications. MDAI 2006, the third in this series of conferences, was held in Tarragona (Catalonia, Spain) from April 3–5. The conference was hosted by the Universitat Rovira i Virgili and chaired by Aida Valls and Josep Domingo-Ferrer (Universitat Rovira i Virgili). The program chairs were Vicenç Torra (IIIA-CSIC, Catalonia, Spain) and Yasuo Narukawa (Toho Gakuen, Japan).

The conference consisted of four plenary talks and about 40 presentations. Regular papers were devoted to the different aspects related to decision: theory, tools, and applications. In relation to theory, results on particular information-fusion techniques (such as fuzzy integrals, probabilistic models) and on some particular kinds of model parameters (such as fuzzy measures) were presented and discussed. The papers on tools described methods for model construction (selection of the operators and of their parameters using, for example, analytic hierarchy process [AHP] techniques) as well as measures and indices for evaluating operators (such as orness). Applications included information retrieval, risk assessment, agents, analysis of medical data, and classification problems.

The first plenary talk was given by Jozo Dujmovic (San Francisco State University). He discussed some formal aspects of aggregation operators from the point of view of a practitioner. He showed how such aspects as orness or asymmetry are relevant in practical applications and how they can help in the process of selecting aggregation operators. The second talk was given by Jordi Sabater (Artificial Intelligence Research Council, Catalonia, Spain). The talk was centered on trust and reputation systems. These systems are used in several real-world applications. Sabater described current research in the area, presenting some of the current research lines and the shortcomings of present approaches. He also outlined some of the topics in which information-fusion and aggregation operators can play a role. The third plenary talk was given by Michio Sugeno (Doshisha University, Japan). Sugeno, who, in 1974, introduced the fuzzy integral that bears his name (a tool widely used for aggregating information), presented his current research in the area of brain-style computing. He presented results showing the influence of the language in the way the brain processes the information. The last plenary talk of the conference was given by Salvatore Greco, on the application of rough sets to case-based reasoning.

The conference papers were published in Springer Verlag's Lecture Notes in Artificial Intelligence series (volume 3885). Further information on the series is available at mdai.cat.

The next MDAI conference will be held August 16-18, 2007, in Kitakyushu, Japan.



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