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Feature cluster: Learning perspectives in Multiple Criteria Decision Analysis

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1. Editorial

The framework of Multiple Criteria Decision Analysis (MCDA) supplies a theoretical basis and a diversity of methods for dealing with complex decision problems involving conflicting criteria. After more than forty years of research and applications in MCDA, it appears clear that to effectively handle such problems, learning has a key role to play. Solving decision problems involves at least two simultaneous learning processes. On one hand, the Decision Maker (DM) learns about the problem, and about her/his own preferences which are initially only vaguely formed in her/his mind. On the other hand, the method learns about the DM's preferences so that to suggest justifiable and transparent recommendation that can be accepted by the DM. The implementation of such a mutual learning process is particularly important in view of an increasing interest in MCDA in domains ranging from environmental management through industrial design and urban planning to finance.

The purpose of this feature cluster was to relate the current discussion on the learning perspectives in MCDA and to advance their understanding in the Operational Research community. Although we strongly encouraged the submission of papers presented at MCDM 2015 - 23rd International Conference on Multiple Criteria Decision Making (Hamburg; August 2-7, 2015), the call for contributions to the feature cluster was open to the entire community of academics and practitioners working in the field of MCDA. The call solicited 38 submissions, eight of which were accepted for publication following the rigorous review process of the European Journal of Operational Research.

The papers contained in the feature cluster consider a wide range of problems with multiple criteria, showcasing the variety of interests in the current research in MCDA. They exhibit new

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