

Invited Session: Knowledge-Based Modeling Environments

Session Organizers:

Daniel Dolk, Naval Postgraduate School , Monterey
Hans-Jürgen Sebastian, RWTH Aachen University

Session Description:

The genesis of model management and modeling environment research was database theory and database management practice. In the contemporary landscape of analytical modeling environments, however, a more suitable reference discipline is knowledge management, with its current emphasis on knowledge flow and knowledge dynamics. Mathematical modeling in Operations Research and Management Science and the related decision support which they are intended to facilitate, are clearly knowledge-based activities, the primary objectives of which are to provide analytical and predictive knowledge about the environments under consideration.

This session examines various aspects of the modeling lifecycle in the context of these emerging knowledge management principles and technology. There will be papers which deal with applications of systems which integrate knowledge and model analysis. Application areas will be Supply Chain Management, Transportation and Facility Location. In addition there will be papers on knowledge simulation and scenario analysis.