Environmental Modelling & Software 25 (2010) 1489



Contents lists available at ScienceDirect

Environmental Modelling & Software

journal homepage: www.elsevier.com/locate/envsoft



Best Paper Awards for 2009

We are pleased to announce the Best Paper Awards for Environmental Modelling and Software for 2009. These awards recognise outstanding papers in the categories 'Generic Modelling and/or Software Methods', 'Integrated Modelling' and 'Decision Support' that embody the aims, scope and high standards of the journal. Candidate papers were shortlisted if they were of exceptional quality, innovative, interdisciplinary in their problem treatment, generic in their utility, and rigorous in the testing and reporting of their model/software. With the support of the Associate Editors, the four Editors of EMS selected the following papers for each of the Best Paper Award categories.

The "Best Paper 2009: Generic Modelling and/or Software" was awarded to N.M.J. Crout, D. Tarsitano, A.T. Wood for "Is my model too complex? Evaluating model formulation using model reduction." In this paper, the authors explore model complexity by applying a method of model reduction by variable replacement and comparing the reduced models within a Bayesian framework. The study demonstrated that reducing a model can result in better performance. The simple and robust method enables the effect of varying model structure to be systematically and readily investigated.

The "Best Paper 2009: Integrated Modelling" was awarded to M. Mahmoud, Y. Liu, H. Hartmann, S. Stewart, T. Wagener, D. Semmens, R. Stewart, H. Gupta, D. Dominguez, F. Dominguez, D. Hulse, R. Letcher, B. Rashleigh, C. Smith, R. Street, J. Ticehurst, M. Twery, H. van Delden, R. Waldick, D. White and L. Winter for "A formal framework for scenario development in support of environmental decision-making." The authors reviewed the state-of-the-art in scenario development and proposed a formal scenario development framework for use in environmental studies is proposed, consisting of five iterative phases: scenario definition, scenario construction, scenario analysis, scenario assessment and risk management. The paper also discusses the benefits and challenges in adopting a formal scenario approach and issues of uncertainty inherent in scenario development.

For the third category, the "Best Paper 2009: Decision Support" was awarded to S. Lautenbach, J. Berlekamp, N. Graf, R. Seppelt and M. Matthies for their paper "Scenario analysis and management options for sustainable river basin management: Application of the Elbe DSS." The paper presents a decision support system developed by the authors for the Elbe catchment in Germany, which integrates georeferenced simulation models and data sets. The models, external constraints, management actions and objectives were grouped into four modules: catchment, river network, main channel and floodplain modules. The Elbe DSS allows users to assess the effectiveness of management actions, including reforestation, buffer strips and erosion control, in achieving water management objectives under external constraints such as climate, demographic and agro-economic changes.

These exceptional papers present valuable contributions to the field of environmental modelling, software and decision support. Congratulations to these three teams for their excellent work. These Best Paper Awards will be presented at the Fifth Biennial meeting of the International Environmental Modelling and Software Society, with the theme "Modelling for Environment's Sake" and held in Ottawa, Canada from July 5–8, 2010 (see www.iemss.org/ iemss2010).

Anthony J. Jakeman Editor-in-Chief Andrea E. Rizzoli Editor Alexey A. Voinov Editor Ioannis N. Athanasiadis Editor