Special Issue: Editor's Introduction

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This issue of the Journal of Problem Solving (JPS) has been inspired by the Dagstuhl Seminar "Computer Science & Problem Solving: New Foundations" co-organized by Iris van Rooij, Yll Haxhimusa, Georg Gottlob, and Zygmunt Pizlo. The seminar was held in 2011 from August 28 to September 2 at Schloss Dagstuhl, Leibniz Centrum für Informatik, Wadern, Germany. A full report on this seminar is available at http://www.dagstuhl.de/en/program/calendar/semhp/?semnr=11351.

Established over 20 years ago, Dagstuhl is a world-recognized venue that brings togethercomputer scientists and researchers in other disciplines for small, highly focused meetings on particular topics. In recent years, an increasing number of these meetings have involved researchers in cognitive science. A special feature of the meeting that inspired this issue of JPS is that it is the first such meeting to address the topic of problem solving.

The seminar was a follow-up of two previous Problem Solving workshops in 2005 and 2008 at Purdue University, USA. These workshops, organized and attended primarily by psychologists, laid bare some fundamental theoretical questions in problem solving research. The organizers believed that research on these questions could benefit from more involvement of computer scientists. This motivated the organization of the Dagstuhl seminar, which aimed to bring together a balanced group of computer scientists and psychologists to explore new formal foundations for problem solving research. Several of the papers appearing in this issue of JPS are direct extensions of ideas generated at the seminar.