

Lecture Notes in Artificial Intelligence

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# New Frontiers in Artificial Intelligence

JSAI 2008 Conference and Workshops  
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Revised Selected Papers

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# Preface

Artificial intelligence has recently been re-energized to provide the clues needed to resolve complicated problems. AI is also expected to play a central role in enhancing a wide variety of daily activities. JSAI (The Japanese Society for Artificial Intelligence) is responsible for boosting the activities of AI researchers in Japan, and their series of annual conferences offers attractive forums for the exposition of the latest achievements and inter-group communication. In the past, the best papers of the conferences were published in the LNAI series.

This book consists of award papers from the 22nd annual conference of the JSAI (JSAI 2008) and selected papers from the three co-located workshops. Eight papers were selected among more than 400 presentations at the conference and 18 papers were selected from the 34 presentations at the co-located workshops; Logic and Engineering of Natural Language Semantics 5 (LENLS 2008), the 2nd International Workshop on Juris-informatics (JURISIN 2008), and the First International Workshop on Laughter in Interaction and Body Movement (LIBM 2008). The award papers from JSAI 2008 were selected through a rigorous selection process. In the process, papers recommended by session chairs, session commentators, and PC members were carefully reviewed, before the final decision was made.

Papers from the three workshops were selected by the organizers of each workshop based on yet another selection process. On average, half of the workshop papers were selected through discussions among organizers. LENLS 2008 focused on the dynamic semantics of natural language, and, in particular, the interactive turn of formal pragmatics, which takes a formal approach to the interactive quality of pragmatic meanings by making use of game-theoretic, decision-theoretic and utility-theoretic approaches. The aims of JURISIN 2008 included encouraging the discussion of the fundamental and practical issues facing juris-informatics by people from various backgrounds such as law, social science, information and intelligent technology, logic and philosophy, including the conventional AI and law area. LIBM 2008 focused attention on the phenomenon of laughter in interactions and body movements of participants, and emphasized the physical/cognitive factors and conditions socially enact laughing situations or moments.

This book will further the international recognition of the excellent research being performed by the Japanese AI community, and also boost AI research in Japan.

# Organization

The award papers were selected by the Program Committee of the annual conference of JSAI (Japan Society for Artificial Intelligence) 2008. The paper selection of each co-located international workshop was made by the Program Committee of the respective workshop. Based on the decisions of the paper awards and the paper selections, each chapter was edited by the Program Chairs of the 22nd annual conference of JSAI 2008 and the co-located international workshops. The entire contents and structure of the book were managed and edited by chief editors.

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