

Preface

These proceedings contain the papers accepted for presentation at the Twentieth International Joint Conference on Artificial Intelligence (IJCAI-07) to be held in Hyderabad, India, January 6–12, 2007. The theme of the conference is “AI and its benefits to society” with the aim of highlighting and guiding our research interests toward problems of direct relevance to society. We hope that readers of these proceedings will be able to discern the theme of the conference in these papers, and use the work presented herein toward realization of that goal.

We were pleased to receive an unprecedented number of papers. A total of 1,365 papers were submitted by authors from 45 different countries. We accepted 470 papers (34.4 percent), with 212 accepted for oral presentation (15.5 percent) and 258 for poster presentation (18.9 percent). No distinction was made between oral and poster presentation papers in these proceedings.

The reviewing process represented an enormous amount of work by many volunteers in our international research community. I acknowledge every single one of them for their extensive reviewing work over this past summer. The papers were distributed among a senior program committee (SPC) of 23 members, a program committee (PC) of 86 members, and a set of 997 reviewers. By early July, I had assigned each paper to one supervisor SPC member and one PC member, who then further assigned them to three reviewers. When completed, the reviews were made available to the authors who had a chance to rebut them. Each PC member then held an anonymous discussion of the authors' rebuttals with the reviewers, and finally made a definite or undecided recommendation for each paper in agreement with the correspondent SPC member. An SPC meeting was held September 16-17, where all the undecided papers were carefully discussed. At the end of the meeting, all papers had a definite decision. The final notifications were sent out to authors on September 18. At the meeting, all the SPC members enthusiastically agreed to the proposed new conference presentation format, in which posters were divided by topic and presented in the same sessions as the oral presentations.

The reviewers and PC members were asked to recommend papers for distinction. We were pleased to see several papers that were identified, out of which a subcommittee of the SPC selected three as the IJCAI'07 distinguished papers. They are “Performance Analysis of Online Anticipatory Algorithms for Large Multistage Stochastic Integer Programs,” by Luc Mercier and Pascal Van Hentenryck; “Building Structure into Local Search for SAT,” by Duc Nghia Pham, John Thornton, and Abdul Sattar; and “Automated Heart Wall Motion Abnormality Detection from Ultrasound Images Using Bayesian Networks” by Maleeha Qazi, Glenn Fung, Sri-ram Krishnan, Romer Rosales, Harald Steck, R. Bharat Rao, Don Poldermans, and Dhanalakshmi Chandrasekaran.

I would like to thank Cynthia Breazeal and Carles Sierra for putting together the excellent tutorial and workshop programs, respectively. Being a program chair involves a significant amount of organizational effort. I could not have done it without the help of several people to whom I would like to express my deep gratitude: April Foster for her administrative support; Maayan Roth for her tremendous technical support handling e-mail and all the conference databases; Thomas Preuss for his consistent, prompt, and most effective help with ConfMaster; the past IJCAI program chairs for the useful information passed to me; and all the IJCAI'07 organizational committees. My special thanks go to Ramon López de Mántaras, the conference chair for IJCAI'07, who was always available to help when needed.

Through this IJCAI'07 program chairing process, I got to know and to truly enjoy the rich research community and wide variety of excellent work in a very special and privileged manner. My final words are to all the contributors and students of this volume: thank you to all for the great research in this fantastic field of artificial intelligence!

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