Preface

This is a very exciting time for AI. The research community is making great progress towards the AI grand challenges. AI accomplishments have reached other research communities and the society at large. This is also shown by the increase in submissions to the 23rd International Joint Conference on Artificial Intelligence over the previous edition. We received 1,473 papers in total and we accepted 413 papers (28 percent). While no distinction is made in these proceedings among all these papers, and all of them were presented as posters at the conference venue, 195 of them (13.2 percent) were presented also with an oral presentation.

The theme of IJCAI-13 was AI and computational sustainability. For this reason, besides the main track, the conference had a special track on this topic, with both technical papers and data challenge papers. All the papers accepted in this track (23 technical papers and 3 data challenge papers) are included in the 413 accepted papers and appear in these proceedings.

Each submitted paper went through a careful and rigorous review process and it received at least three reviews, which were provided by 397 members of the senior program committee and 1799 members of the program committee. The review process for each paper was overseen by one of 35 area chairs, who monitored the reviews of the papers and supervised the discussion after the author feedback period. During the discussion period, authors were invited to submit feedback on the reviews. The author feedback was taken into account for the final discussion and, when necessary, additional reviews were collected. Discussions were often very detailed and, in most cases, led to resolution of issues brought up by the reviewers. When needed, the area chair wrote a meta-review, justifying the recommendation for the paper. The program chair finally consulted with all the area chairs in order to reach all final decisions.

These proceedings include also papers presented in other tracks. The special track on best papers from sister conferences includes an additional 36 papers that have been honored with the best paper award or best thesis award in prestigious AI-related conferences in specific areas of AI. The journal track includes 12 papers that summarize the contribution of papers that have been published already in the *Artificial Intelligence Journal* or the *Journal of Artificial Intelligence Research* but have never been presented before at a conference. These proceedings include also 29 papers written by students participating in the Doctoral Consortium, as well as papers from some of the invited speakers and award winners.

Being the program chair of an IJCAI conference is a very complex and interesting job. It was really a privilege to be able to serve the AI community in this way. I wish to thank first of all the IJCAI trustees, who took the adventurous decision to choose me for this role. One of the best aspects of this job is working with a large number of great people, all full of enthusiasm and passion in their respective roles. I would like to thank them all. First, the authors of the submitted papers. I tried my best to organize the reviewing of their papers in a way that was as fair and respectful of their hard work as possible. I could do that only thanks to the extremely hard work of all area chairs, senior program committee members, and program committee members, who brought their extensive experience and competence to this difficult job. In this respect, I would also like to thank Thomas Preuss from ConfMaster, for his patience and never ending availability to help me with the intricacies of the ConfMaster management system, as well as Domenico Salvagnin, who helped me very much in dealing with this system. I would also like to thank the chairs of the AI and Computational Sustainability Track, of the Journal Track, and of the track on Best Papers from Sister Conferences, as well as the Workshop, Tutorial, Doctoral Consortium, Video Competition, Robot Competition/Exhibition, and Colocation chairs. They all accepted my invitation with great enthusiasm and did a wonderful job. I am very indebted to Sebastian Thrun, the conference chair, who has always been an inspiring and guiding force for me, always ready to give advice when I needed it, on various parts of the program. Thanks also to Vesna Sabljakovic-Fritz, the IJCAI Executive Secretary, who has been a continuous source of information and guidance about IJCAI rules and practices. I also thank the Local Arrangement Chairs, who have worked very hard to match Chinese practices with my requests about the various events of the conference program. Thanks also to Francisco Cruz, the IJCAI-13 web chair, who did a wonderful job with the conference web site. I thank very much also Mike Hamilton from AAAI Press for working very smoothly and enthusiastically with me on putting together these proceedings. Finally, I would like to thank my husband, for being incredibly patient in accepting my extensive lack of attention for the family because of IJCAI.

– Francesca Rossi
University of Padova
IJCAI-13 Program Chair