The AAMAS Conference is the premier international forum for the publication of research in the theory and practice of autonomous agents and multi-agent systems. The 2004 AAMAS Conference is the third in a series that was initiated in 2002 as a merger of three highly successful related events: the International Conference on Autonomous Agents (AGENTS); the International Conference on Multi-Agent Systems (ICMAS); and the International Workshop on Agent Theories, Architectures and Languages (ATAL).

The first AAMAS conference (AAMAS’02, Bologna, Italy) attracted nearly 700 delegates, establishing AAMAS as the major event in agent systems research. The following conference (AAMAS’03, Melbourne, Australia) received 466 submissions and attracted close to 500 delegates, a wonderfully positive outcome in a year of major global upheaval, and an affirmation of the importance of this conference series in the international computing research calendar. These two successes set a high standard for the 2004 conference, and we are delighted to report the very strong outcomes.

AAMAS’04 received 577 submissions from 42 countries, including over 300 submissions with a student as first named author. The 39 members of the Senior Program Committee had recruited over 250 Program Committee members to handle the peer reviewing procedure and during the process an additional 100 reviewers were enlisted. Each paper was refereed by three independent reviewers, and after further input from the senior program committee members and the Program Co-chairs, 142 submissions were selected as full papers and a similar number of submissions were selected for poster presentation. The acceptance rate for full papers was 24.6%, ensuring high quality and yet allowing diversity of topics and perspectives. The acceptance rate for full papers and posters together was 49.7%, and included representation from 28 countries. We sincerely thank the hardworking SPC and PC members – without their insightful efforts, and strict keeping to deadlines, the whole endeavor would not be able to proceed.

This volume includes the full papers, poster summaries, details of the keynote presentations, a preview of the panel session “Business Process Management: A Killer App for Agents?” and also brief descriptions of selected demonstrations of agent technologies and agent-related software and hardware. When taken together, we believe these articles and summaries present a rich overview of a healthy international research activity in this key field, and we hope that you will enjoy reading, or just browsing, these proceedings.