The IV Iberoamerican Workshop on Multiagent Systems (Iberagents 2002) follows in a series of workshops associated with the IBERAMIA conferences, with the purpose of providing a deeper understanding of agent technology and related issues. This time it was held in Málaga (Spain), 11–12 November 2002, and the main concern of the workshop was software engineering aspects in the development of multi-agent systems.

Considering the diversity of agent applications and techniques that have appeared in the last decade, it is time to consider whether agent technology can be used in an industrial context, integrating software engineering processes, as it happens with more mature technologies. The workshop was organized in three sessions: Applications (which applications could benefit from the use of agents and why), Methodologies (how to model and build a multi-agent system), and Practices (specific issues for building agent-based applications, such as interaction modeling, coordination and collaboration, and knowledge management). Twelve (12) papers were presented from a selection of 26 that were received at the workshop. Authors of these papers were invited to submit substantially extended manuscripts with additional original computational materials for possible publication in this special issue of the journal. These papers followed a second review process, by at least three reviewers, resulting in six acceptable papers that appear in this issue.

These papers discuss the application of agent technology from different perspectives. From the methodological point of view (Gaia, AUML, recursive agents) for general purpose distributed systems, to the considerations of high demanding services (real time systems and grid computing), and more specific control and planning in organizations (e.g., bus fleet management). Finally, one paper addresses a distinctive feature of agents: their capability to adapt to a changing environment, by learning new ways to interact with other agents.

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Guest Editor