
Preface

Negotiation mechanisms have been studied widely in the field of multi-agent systems. They possess a variety of features that enable agents to negotiate with each other even in open environments. However, mainly because of limited computational power, there are several assumptions that traditionally limit the degree of openness. Recent studies have tended to focus on completely open and highly uncertain environments that apply agent systems to the real world. For example, in emergency rescue domains, we cannot expect to know when and where a fire starts and when humans are likely to be injured. Also, in Internet auctions, there can be shill bids since there are many unauthenticated participants. Nowadays, we can employ machines with large computational power to compute an optimal way for agents to negotiate, even in completely open and highly uncertain environments. For the practical use of multi-agent systems in the real world, the reliability of each agent's behavior is essentially required. Concretely, agents must obtain the most appropriate solution/solutions based on rational, robust, and secure negotiation among multiple agents even if the environment is intractable. We solicit papers on all aspects of such negotiation mechanisms in multi-agent systems, including multi-issue negotiations, concurrent negotiations, strategy-proof mechanisms, rational argumentation, auctions and voting, and so on. These issues are being explored by researchers from different communities in multi-agent systems. They are, for instance, being studied in agent negotiation, multi-issue negotiations, auctions, mechanism design, electronic commerce, voting, secure protocols, matchmaking and brokering, argumentation, and co-operation mechanisms.

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