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Mathematical Social Sciences 36 (1998) 1–2

mathematical
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sciences

Introduction

This special issue and a forthcoming companion issue contain a selection of papers presented at the Second Conference on “Logic and the Theory of Games and Decisions” (LOFT2), which took place at the International Centre for Economics Research (ICER) in Turin in December 1996. This was a continuation of a successful conference on the same theme held at the Centre International de Recherches Mathematiques in Marseille in January 1994. Both events attracted prominent research from a variety of experts and highlighted the growing interest in epistemic logic as a common language to different professional communities. We also announce that a third conference (LOFT3) is scheduled to be held at ICER in December 1998 and hope that the LOFT conferences will become a regular forum for scholars in this area.

The central theme of the LOFT conferences is the application of logical methods to foundational issues in the theory of games and individual decision-making. Interest in the epistemic foundations of game theory is not new: for instance, work has been done on the refinements of Nash equilibrium since the 1970s, and much has been written on common knowledge since Aumann’s work in the same years. What is relatively new is the realization that the tools and methodology that seem appropriate for this research agenda are closely related to those already used in other fields, such as: philosophical logic and epistemology, artificial intelligence and distributed systems, and cognitive psychology. The purpose of the LOFT conferences is to bring together contributors from all these fields, and by facilitating interdisciplinary exchanges, to bring about advances in the particular applications of epistemic logic mentioned above. Topics that fall within the LOFT umbrella include modal epistemic logics, theories of belief revision, non-monotonic reasoning, models of bounded rationality, theories of complexity, models of learning and information-processing, etc. The reasons motivating the game theorists’ and economists’ interest in epistemic logic may differ from those in other disciplines. However, the insights gained and the methodology employed in one discipline can benefit another. The papers collected in this and the companion issue reflect the many facets of epistemic logic broadly understood.

The two special issues of *Mathematical Social Sciences* devoted to LOFT2 follow in the steps of two collections of papers from the LOFT1 conference: a special issue of *Theory and Decision* edited by Michael Bacharach and Philippe Mongin (vol. 37, 2, 1994) and the volume *Epistemic logic and the theory of games and decisions* edited by


M.O.L. Bacharach, L.-A. Gérard-Varet, P. Mongin and H.S. Shin and published by Kluwer Academic (1997).


The three guest editors are grateful to Hervé Moulin, Managing Editor of *Mathematical Social Sciences*, for devoting two special issues of the Journal to LOFT2 and to ICER for funding and hosting LOFT2 as well as the forthcoming LOFT3 conference (December 17–20, 1998). The guest editors would also like to thank the referees for their invaluable help and the authors for their cooperation.


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