Epistemic Logic and the Theory of Games and Decisions /

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Monografía

The convergence of game theory and epistemic logic has been in progress for two decades and this book explores this further by gathering specialists from different professional communities, i.e., economics, mathematics, philosophy, and computer science. This volume considers the issues of knowledge, belief and strategic interaction, with each contribution evaluating the foundational issues. In particular, emphasis is placed on epistemic logic and the representative topics of backward induction arguments and syntax/semantics and the logical omniscience problem. Part I of this collection deals with iterated knowledge in the multi-agent context, and more particularly with common knowledge. The first two papers in Part II of the collection address the so-called logical omniscience problem, a problem which has attracted much attention in the recent epistemic logic literature, and is pertinent to some of the issues discussed by decision theorists under the heading `bounded rationality'. The remaining two chapters of section II provide two quite different angles on the strength of S5 (or the partitional model of information)- and so two different reasons for eschewing the strong form of logical omniscience implicit in S5. Part III gives attention to application to game theory and decision theory

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