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Preface

It has become apparent in the last decades that human practical reasoning demands more than traditional deductive logic can offer. From both a philosophical and an engineering perspective the analysis and mechanisation of human practical reasoning requires a subtle understanding of pragmatics, dialectics, and linguistics, even psychology. Philosophers, software engineers, and AI researchers have similar ambitions in this respect; they all try to deepen our understanding of human reasoning and argumentation.

Various aspects of human practical reasoning have resulted in the development of non-monotonic logics, default reasoning, modal logics, belief function theory, Bayesian networks, fuzzy logic, possibility theory, and user modelling approaches, to name a few. These are new and active areas of research with many practical applications and many interesting, as yet unsolved, theoretical problems.

This volume contains the accepted and the invited papers for the ECSQARU/-FAPR '97, the first international joint conference on quantitative and qualitative practical reasoning.

The three predecessors of ECSQARU '97 were sponsored and organized by the consortium of DRUMS (Defeasible Reasoning and Uncertainty Management Systems, ESPRIT III BRA 6156). The goal of this project, which involved 21 European universities and research organizations, was to develop techniques in the fields of belief change, non-monotonic deduction, inconsistency in reasoning, abduction, efficient inference algorithms, and dynamic reasoning with partial models. FAPR '96 was sponsored by MEDLAR, the European project on practical reasoning, which involved 15 major European groups in mechanised deduction in qualitative practical reasoning.

The purpose of the ECSQARU/FAPR is to introduce these communities to each other, compare the current state of research, and make research available to all researchers involved.

This year particular attention was directed to special tutorials and invited sessions which were organised by leading researchers from the "quantitative" and the "qualitative communities" respectively.

We are indebted to the program committee for their effort and thought in organizing the program, to the invited speakers, and to the presenters of the tutorials. Moreover, we gratefully acknowledge the contribution of the many referees who were involved in the reviewing process. Special thanks go to Christine Harms who ensured that the event ran smoothly.

March 1997

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