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Mathematical Foundations of Programming Semantics

5th International Conference Tulane University, New Orleans, Louisiana, USA March 29–April 1, 1989 Proceedings



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Preface

The Fifth International Conference on the Mathematical Foundations of Programming Semantics was held on the campus of Tulane University, New Orleans, Louisiana from March 29 to April 1, 1989. The major goal of this workshopconference series is to bring together computer scientists who work in programming semantics and mathematicians who work in areas which might impact programming semantics so that they may share ideas and discuss problems of mutual interest. By letting mathematicians see applications of their work to programming semantics and by letting computer scientists see their ideas and intuitions expressed in pure mathematics, the organizers have sought to improve communication among the researchers in these areas and to establish ties between related areas of research. With these goals in mind, the invited speakers for the conference were:

Samson Abramsky, Imperial College Luca Cardelli, DEC Research Peter Johnstone, University of Cambridge Robin Milner, University of Edinburgh Peter Freyd, University of Pennsylvania John Reynolds, Carnegie-Mellon University

In addition, there were contributed talks by sixteen researchers, as well as a number of shorter presentations. These last were presented during the Organizers' Sessions, which were a new and innovative feature of the conference. They were designed to add flexibility to the program to accommodate interesting new developments which were not available at the time of the Call for Papers. Two papers from that session, those by John Gray and by A. J. Power, are included in this volume. In addition, the paper by C. A. R. Hoare and He Jifeng has evolved from a series of invited lectures which the authors presented at the Fourth MFPS workshop, which was held in Boulder, Colorado in 1988.

An informal preconference meeting took place on March 27 and 28, and it was at this gathering that Samson Abramsky presented a talk on the Kahn Principle, which is the topic of his contribution to these Proceedings. Also, a session organized by Carl Gunter (University of Pennsylvania) on the semantics of inheritance took place during the fifth conference and presented new results in this emerging area.

The Program Committee was chaired by Austin Melton and David Schmidt. In addition to the editors of this volume, the Committee consisted of Boumediene Belkhouche, Steve Brookes, Carl Gunter, Jimmie Lawson, Frank Oles, George Revesz, Teodor Rus, Robert Tennent and Eric Wagner. The editors wish to express their thanks to the other members of the Committee for their efforts in reviewing the papers submitted for presentation at the Conference. Additional thanks are due to Boumediene Belkhouche, who also served so capably as the Local Arrangements Chairman for the Conference.

The Conference was supported by funds from the Office of Naval Research and from the National Science Foundation. We thank these organizations for their generous support of the Conference. Thanks are due to the many people who helped make the conference run so smoothly. These include Michael Huth, Peggy Jordan, John Kozma, Marguerite Saacks and Han Zhang. Finally, we all owe a special thank you to Geralyn Caradona, Administrative Assistant of the Mathematics Department of Tulane University, who managed to oversee virtually all of the small details of running the conference (even to the extent of relocating the major social gathering on the day it occurred) with such dispatch that the rest of us were able to concentrate on the main order of business, the program.

Michael Main Austin Melton Michael Mislove David Schmidt February, 1990

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