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164

Logics of Programs

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Edited by Edmund Clarke and Dexter Kozen

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FOREWORD

Logics of Programs, as a field of study, touches on a wide variety of activities in computer science and mathematics. It draws on mathematical foundations of formal logic, semantics, and complexity theory, and finds practical application in the areas of program specification, verification, and programming language design. The Logics of Programs Workshop was conceived as a forum for the informal sharing of problems, results, techniques, and new applications in these areas, with special emphasis on bridging whatever abyss may exist between the theoreticians and the pragmatists.

The workshop was held on June 6-8, 1983 at Carnegie Mellon University. It was the fourth in an unofficial series, which started in 1979 with the workshop in Zürich organized by Erwin Engeler, and continued with the 1980 Poznan workshop organized by Andrzej Salwicki and the 1981 Yorktown Heights workshop organized by Dexter Kozen. Since the 1979 workshop, interest and participation has grown precipitiously: the CMU workshop drew 59 registered participants from 8 countries, as well as many unregistered participants. 38 technical papers were presented, representing the entire spectrum of activity in Logics of Programs from model theory to languages for the design of digital circuits. The contributions of the workshop participants appearing in this volume are unrefereed and are to be considered working papers.

The workshop was held in cooperation with the Association for Computing Machinery, and was made possible through the generous support of the National Science Foundation[1] and the Office of Naval Research[2]. We wish to thank all who helped with the organization of the workshop and preparation of the proceedings, especially John Cherniavsky, Robert Grafton, Magdalena Müller, and Nancy Perry.

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CONTENTS