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Logics of Programs

Workshop, Carnegie Mellon University
Pittsburgh, PA, June 6–8, 1983

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 precipitously: 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 Foundation¹ and the Office of Naval Research². 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.

Edmund Clarke
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CONTENTS

Krzysztof R. APT A Static Analysis of CSP Programs	1
J.W. de BAKKER, J.I. ZUCKER Compactness in Semantics for Merge and Fair Merge	18
J.A. BERGSTRÄ, J.W. KLOP, J.V. TUCKER Algebraic Tools for System Construction	34
J.A. BERGSTRÄ, J. TIURYN PC-Compactness, a Necessary Condition for the Existence of Sound and Complete Logics of Partial Correctness	45
Howard A. BLAIR The Intractability of Validity in Logic Programming and Dynamic Logic	57
Stephen D. BROOKES A Semantics and Proof System for Communicating Processes	68
Robert CARTWRIGHT Non-Standard Fixed Points in First Order Logic	86
E. CLARKE, B. MISHRA Automatic Verification of Asynchronous Circuits	101
R.L. CONSTABLE Mathematics as Programming	116
Ch. CRASEMANN, H. LANGMAACK Characterization of Acceptable by ALGOL-Like Programming Languages	129
Flaviu CRISTIAN A Rigorous Approach to Fault-Tolerant System Development (Extended Abstract)	147
Werner DAMM, Bernhard JOSKO A Sound and Relatively* Complete Axiomatization of Clarke's Language L_4	161
E. Allen EMERSON, A. Prasad SISTLA Deciding Branching Time Logic: A Triple Exponential Decision Procedure for CTL* ..	176
Erwin ENGELER Equations in Combinatory Algebras	193
S. M. GERMAN, E. M. CLARKE, J. Y. HALPERN Reasoning About Procedures as Parameters	206
J.A. GOGUEN, R.M. BURSTALL Introducing Institutions	221
Orna GRÜMBERG, Nissim FRANCEZ, Shmuel KATZ A Complete Proof Rule for Strong Equifair Termination	257

A.J. KFOURY, P. URZYCZYN Necessary and Sufficient Conditions for the Universality of Programming Formalisms (Partial Report)	279
Tmima KOREN, Amir PNUELI There Exist Decidable Context Free Propositional Dynamic Logics	290
Dexter KOZEN, Rohit PARIKH A Decision Procedure for the Propositional μ -Calculus	313
B.D. LUBACHEVSKY A Verifier for Compact Parallel Coordination Programs	326
Charles McCARTY Information Systems, Continuity and Realizability	341
John McLEAN A Complete System of Temporal Logic for Specification Schemata	360
Ben MOSZKOWSKI, Zohar MANNA Reasoning in Interval Temporal Logic	371
Ernst-Rüdiger OLDEROG Hoare's Logic for Programs with Procedures -- What Has Been Achieved?	383
Rohit PARIKH, Anne MAHONEY A Theory of Probabilistic Programs	396
David A. PLAISTED A Low Level Language for Obtaining Decision Procedures for Classes of Temporal Logics	403
John H. REIF, William L. SCHERLIS Deriving Efficient Graph Algorithms (Summary)	421
John C. REYNOLDS An Introduction to Specification Logic	442
Richard L. SCHWARTZ, P.M. MELLIAR-SMITH, Friedrich H. VOGT An Interval-Based Temporal Logic	443
Joseph SIFAKIS Property Preserving Homomorphisms of Transition Systems	458
B.A. TRAKHTENBROT, Joseph Y. HALPERN, Albert R. MEYER From Denotational to Operational and Axiomatic Semantics for ALGOL-like Languages: an Overview	474
Moshe Y. VARDI, Pierre WOLPER Yet Another Process Logic (Preliminary Version)	501
Job ZWIERS, Arie de BRUIN, Willem Paul de ROEVER A Proof System for Partial Correctness of Dynamic Networks of Processes (Extended Abstract)	513
ERRATA	528