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                   Computer logic
                   Mathematical logic
                   Programming languages (Electronic computers)
                   Software Engineering/Programming and Operating Systems
                   Programming Techniques
                   Software Engineering
                   Logics and Meanings of Programs
                   Mathematical Logic and Formal Languages
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Nota di contenuto Integrating Programming, Properties, and Validation -- Polytypic Values Possess Polykinded Types -- The Zip Calculus -- Separation and Reduction -- Reasoning about Non-terminating Loops Using Deadline Commands -- Quantum Programming -- Regular Expressions Revisited: A Coinductive Approach to Streams, Automata, and Power Series -- Proving Pointer Programs in Hoare Logic -- On Guarded Commands with Fair Choice -- Formal Methods and Dependability -- Liberating Data Refinement -- Theorems about Composition -- The Universal Resolving Algorithm: Inverse Computation in a Functional Language -- Metacomputation-Based Compiler Architecture -- A Metalanguage for Programming with Bound Names Modulo Renaming.

| Sommario/riassunto | This volume contains the proceedings of MPC 2000, the ?fth international c- ference on Mathematics of Program Construction. This series of conferences aims to promote the development of mathematical principles and techniques that are demonstrably useful and usable in the process of constructing c- puter programs (whether implemented in hardware or software). The focus is on techniques that combine precision with concision, enabling programs to be constructed by formal calculation. Within this theme, the scope of the series is very diverse, including programming methodology, program speci?cation and transformation, programming paradigms, programming calculi, and progr- ming language semantics. The quality of the papers submitted to the conference was in general very high. However,the number of submissions has decreased compared to the pre- ous conferences in the series. Each paper was refereed by at least ?ve and often more committee members. In order to maintain the high standards of the c- ference the committee took a stringent view on quality; this has meant that, in some cases, a paper was rejected even though there was a basis for a good c- ference or journal paper but the submitted paper did not meet the committee's required standards. In a few cases a good paper was rejected on the grounds that it did not ?t within the scope of the conference. |