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   Nota di contenuto   Intro -- Preface -- Organization -- Invited Talk -- Formalising Requirements for Verification -- Contents -- Invited Talks -- Efficient Temporal Logic Runtime Monitoring for Tiny Systems -- 1 Introduction -- 2 Related Work -- 3 Linear Temporal Logic Runtime Monitoring on Small-Scale Systems - Step By Step -- 4 Keeping Track of Specification Violation Reasons -- 5 A Specialized Microcontroller Component for Temporal Logic Runtime Monitoring -- 6 Conclusion -- References -- Quality of Tests and Proofs -- Is MCDC Really Better? Lessons from Combining Tests and Proofs -- 1 Overview -- 1.1 Coverage Measures -- 1.2 The Need for MCDC -- 1.3 Precise Definition and Properties of MCDC -- 2 Technology Base -- 2.1 The AutoProof Environment -- 2.2 Seeding Contradiction for Test Generation -- 2.3 SC for Achieving Branch Coverage -- 3 Seeding Contradiction for Achieving MCDC -- 3.1 Approach -- 3.2 Implementation -- 4 Evaluation -- 4.1 Experimental Setup -- 4.2 MCDC-SC Versus Branch-SC -- 4.3 MCDC-SC Versus Branch-SC and Adaptive Random Testing -- 5 Related Work -- 6 Limitations and Threats to Validity -- 7 Conclusions and Future Work -- References -- Refining CEGAR-Based Test-Case Generation with Feasibility Annotations -- 1 Introduction -- 2 Overview of CEGAR-Based Test-Case Generation -- 3 Feasibility Checking with Feasibility

Sommario/riassunto

This book constitutes the proceedings of the 18th International Conference on Tests and Proofs, TAP 2024. TAP 2024 took place in Milan, Italy, on September 9 and 10, 2024 as part of the Formal Methods symposium (FM 2024), which included four more co-located conferences besides TAP: FMICS (Formal Methods in Industrial Critical Systems), LOPSTR (In ternational Symposium on Logic-based Program Synthesis and Transformation), PPDP (International Symposium on Principles and Practice of Declarative Pro gramming), and FACS (International Conference on Formal Aspects of Compo nent Software. The 7 full papers together with 1 short paper included in this volume

were carefully reviewed and selected from 14 submissions. TAP's scope encompasses many aspects of verification technology, including foundational work, tool development, and empirical research.