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	Soggetti	Compilers (Computer programs)
		Artificial intelligence
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		Computer science
		Software engineering
		Computer engineering
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		Artificial Intelligence
		Programming Techniques
		Computer Science Logic and Foundations of Programming
		Software Engineering
		Computer Engineering and Networks
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	Nota di contenuto	Program Analysis and Verification -- A Set-Based Context Model for Program Analysis -- Declarative Stream Runtime Verification (hLola) -- Formal Verification of Atomicity Requirements for Smart Contracts -- Types -- Neural Networks, Secure by Construction: An Exploration of Refinement Types -- A New Refinement Type System for Automated nu-HFLZ Validity Checking -- Behavioural Types for Memory and Method Safety in a Core Object-Oriented Language -- Syntactically Restricting Bounded Polymorphism for Decidable Subtyping --

Semantics -- An Abstract Machine for Strong Call by Value -- Certified Semantics for Relational Programming -- Algebraic and Coalgebraic Perspectives on Interaction Laws -- Program Generation, Transactions and Automation -- Stack-Driven Program Generation of WebAssembly -- Banyan: Coordination-free Transactions over Mergeable Replicated Data Types -- Automatically Generating Descriptive Texts in Logging Statements: How Far Are We? -- Synthesis and ProgramTransformation -- Synthesis and Program Transformation -- Relational Synthesis for Pattern Matching -- REFINITY to Model and Prove Program Transformation Rules -- Debugging, Profiling and Constraint Solving -- A Counterexample-Guided Debugger for Non-Recursive Datalog -- A Symbolic Algorithm for the Case-Split Rule in String Constraint Solving -- P3: A Profiler Suite for Parallel Applications on the Java Virtual Machine.

Sommario/riassunto	This book constitutes the proceedings of the 18th Asian Symposium on Programming Languages and Systems, APLAS 2020, held in Fukuoka, Japan, in December 2020.* The 19 papers presented in this volume were carefully reviewed and selected from 46 submissions. They were organized in topical sections named: Invited Papers, Types, Program Analysis, Semantics, Language Design and Implementation, Concurrency, Verification, and Logic and Automata. * The conference was held virtually due to the COVID-19 pandemic.