

1. Record Nr.	UNINA9910484909103321
Titolo	Programming Languages and Systems : 15th Asian Symposium, APLAS 2017, Suzhou, China, November 27-29, 2017, Proceedings / / edited by Bor-Yuh Evan Chang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-71237-3
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XIX, 555 p. 116 illus.)
Collana	Programming and Software Engineering, , 2945-9168 ; ; 10695
Disciplina	005.13
Soggetti	Compilers (Computer programs) Computer programming Computer science Computers Professions Electronic digital computers - Evaluation Compilers and Interpreters Programming Techniques Theory of Computation The Computing Profession System Performance and Evaluation Computer Hardware
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Invited Contributions -- Programming by Examples: PL meets ML -- Synthesizing SystemC Code from Delay Hybrid CSP -- Security -- Taming Message-passing Communication in Compositional Reasoning about Confidentiality -- Capabilities for Java: Secure Access to Resources -- Enforcing Programming Guidelines with Region-Types and Effects -- Automatically generating secure wrappers for SGX enclaves from separation logic specifications -- Heap and Equivalence Reasoning -- Black-box equivalence checking across compiler optimizations -- Weakly Sensitive Analysis for Unbounded Iteration

over JavaScript Objects -- Decision Procedure for Entailment of Symbolic Heaps with Arrays -- Bringing order to the separation logic jungle -- Concurrency and Verification -- Programming and proving with classical types -- Static Analysis of Multithreaded Recursive Programs Communicating via Rendez-vous -- Verified Root-Balanced Trees -- Safety and Liveness of MCS Lock - Layer by Layer -- Domain-Specific Languages -- Palgol: A High-Level DSL for Vertex-Centric Graph Processing with Remote Data Access -- Efficient Functional Reactive Programming through Incremental Behaviors -- Implementing Algebraic Effects in C - Monads for Free in C -- Sound and Efficient Language-Integrated Query: Maintaining the ORDER -- Semantics -- A Computational Interpretation of Context-Free Expressions -- Partiality and container monads -- The Negligible and Yet Subtle Cost of Pattern Matching -- A lambda calculus for density matrices wth classical and probabilistic controls -- Numerical Reasoning -- Compact Difference Bound Matrices -- Sharper and Simpler Nonlinear Interpolants for Program Verification -- A Nonstandard Functional Programming Language -- Counterexample-Guided Bit-Precision Selection.

---

**Sommario/riassunto**

This book constitutes the proceedings of the 15th Asian Symposium on Programming Languages and Systems, APLAS 2017, held in Suzhou, China, in November 2017. The 24 papers presented in this volume were carefully reviewed and selected from 56 submissions. They were organized in topical sections named: security; heap and equivalence reasoning; concurrency and verification; domain-specific languages; semantics; and numerical reasoning. The volume also contains two invited talks in full-paper length. .

---