

|                         |   |
|-------------------------|---|
| 1. Record Nr.           | UNINA9910768464603321   |
| Titolo                  | Programming Languages and Systems : 21st Asian Symposium, APLAS 2023, Taipei, Taiwan, November 26–29, 2023, Proceedings // edited by Chung-Kil Hur  |
| Pubbl/distr/stampa      | Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023  |
| ISBN                    | 981-9983-11-8   |
| Edizione                | [1st ed. 2023.]   |
| Descrizione fisica      | 1 online resource (337 pages)   |
| Collana                 | Lecture Notes in Computer Science, , 1611-3349 ; ; 14405  |
| Disciplina              | 005.13  |
| Soggetti                | Compilers (Computer programs)<br>Computer programming<br>Computer science<br>Artificial intelligence<br>Compilers and Interpreters<br>Programming Techniques<br>Theory of Computation<br>Artificial Intelligence  |
| Lingua di pubblicazione | Inglese   |
| Formato                 | Materiale a stampa  |
| Livello bibliografico   | Monografia  |
| Nota di bibliografia    | Includes bibliographical references and index.  |
| Nota di contenuto       | Types -- Compilation Semantics for a Programming Language with Versions -- What Types are Needed for Typing Dynamic Objects? A Python-based Empirical Study -- Types and Semantics for Extensible Data Types -- Functional Languages -- A Diamond Machine for Strong Evaluation -- Proofs as Terms, Terms as Graphs -- Typed Non-determinism in Functional and Concurrent Calculi -- Interactive Theorem Proving -- A Fresh Look at Commutativity: Free Algebraic Structures via Fresh Lists -- Oracle Computability and Turing Reducibility in the Calculus of Inductive Constructions -- Experimenting with an Intrinsically-typed Probabilistic Programming Language in Coq -- Verification -- Towards a Framework for Developing Verified Assemblers for the ELF Format -- Transport via Partial Galois Connections and Equivalences -- Argument Reduction of Constrained Horn Clauses Using Equality Constraints -- Static Analysis and Testing -- Incorrectness Proofs for Object-Oriented Programs via |

Subclass Reflection -- m-CFA Exhibits Perfect Stack Precision --  
TorchProbe: Fuzzing Dynamic Deep Learning Compilers.

---

Sommario/riassunto

This book constitutes the refereed proceedings of the 21st Asian Symposium on Programming Languages and Systems, APLAS 2023, held in Taipei, Taiwan, during November 26–29, 2023. The 15 full papers included in this book are carefully reviewed and selected from 32 submissions. They were organized in topical sections as follows: semantics, logics, and foundational theory; design of languages, type systems, and foundational calculi; domain-specific languages; compilers, interpreters, and abstract machines; program derivation, synthesis, and transformation; program analysis, verification, and model-checking; logic, constraint, probabilistic, and quantum programming; software security; concurrency and parallelism; tools and environments for programming and implementation; and applications of SAT/SMT to programming and implementation.

---