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Logics and Languages for Reliability and Security

Edited by
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Software-intensive systems are today an integral part of many everyday products. Whilst they provide great benefits in terms of ease of use and allow for new applications, they also impose enormous responsibilities. It is vital to ensure that such applications work correctly and that any data they use remains secure. Increasing the reliability of such systems is an important and challenging research topic in current computer science.

This volume presents a number of papers which formed the basis for lectures at the 2009 summer school *Formal Logical Methods for System Security and Correctness*.

The topics include: program analysis and verification by abstract interpretation, principles and applications of refinement types, multi-valued automata and their applications, mechanized semantics with applications to program proof and compiler verification and using security policies to write secure software, among others.

This book delivers an interesting and valuable overview of state-of-the-art in logic- and language-based solutions to system reliability and security to anyone concerned with the correct functioning of software systems.

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