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Nota di contenuto	Introduction -- Preliminaries -- Error Metric Computation for Approximate Combinational Circuits -- Formal Verification of Approximate Sequential Circuits -- Synthesis Techniques for Approximation Circuits -- Post-Production Test Strategies for Approximation Circuits -- ProACt: Hardware Architecture for Cross-Layer Approximate Computing -- Conclusions and Outlook -- Index -- References.
Sommario/riassunto	This book describes reliable and efficient design automation techniques for the design and implementation of an approximate computing system. The authors address the important facets of approximate computing hardware design - from formal verification and error guarantees to synthesis and test of approximation systems. They provide algorithms and methodologies based on classical formal verification, synthesis and test techniques for an approximate computing IC design flow. This is one of the first books in Approximate

Computing that addresses the design automation aspects, aiming for not only sketching the possibility, but providing a comprehensive overview of different tasks and especially how they can be implemented. Provides a general overview of approximate computing hardware design; Offers a detailed explanation of the formal verification problem for approximate hardware; Explains in detail several algorithms for the synthesis and verification of an approximate hardware; Includes an overview of the post production test for approximation circuits and methodologies to potentially improve the yield of the fabrication process; Uses case studies and experimental results to depict the problem and usefulness of the approach.