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Sommario/riassunto

This book provides the reader with knowledge on a wide variety of radiation fields and their effects on the electronic devices and systems. The author covers faults and failures in ULSI devices induced by a wide variety of radiation fields, including electrons, alpha-rays, muons, gamma rays, neutrons and heavy ions. Readers will learn how to make numerical models from physical insights, to determine the kind of mathematical approaches that should be implemented to analyze radiation effects. A wide variety of prediction, detection, characterization and mitigation techniques against soft-errors