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Nota di contenuto	About the Author xiii -- Preface xv -- Acknowledgements xvii -- Acronyms xix -- 1 Introduction 1 -- 1.1 Basic Knowledge on Terrestrial Secondary Particles 1 -- 1.2 CMOS Semiconductor Devices and Systems 4 -- 1.3 Two Major Fault Modes: Charge Collection and Bipolar Action 7 -- 1.4 Four Hierarchies in Faulty Conditions in Electronic Systems: Fault - Error - Hazard - Failure 12 -- 1.5 Historical Background of Soft-Error Research 14 -- 1.6 General Scope of This Book 18 -- References 18 -- 2 Terrestrial Radiation Fields 23 -- 2.1 General Sources of Radiation 23 -- 2.2 Backgrounds for Selection of Terrestrial High-Energy Particles 23 -- 2.3 Spectra at the Avionics Altitude 25 -- 2.4 Radioisotopes in the Field 28 -- 2.5 Summary of Chapter 2 31 -- References 31 -- 3 Fundamentals of Radiation Effects 33 -- 3.1 General Description of Radiation Effects 33 -- 3.2 Definition of Cross Section 35 -- 3.3 Radiation Effects by Photons (Gamma-ray and X-ray) 36 -- 3.4 Radiation Effects by Electrons (Beta-ray) 37 -- 3.5 Radiation Effects by Muons 39 -- 3.6 Radiation Effects by Protons 40 -- 3.7 Radiation Effects by Alpha-Particles 43 -- 3.8 Radiation Effects by Low-Energy

Neutrons	43	--	3.9 Radiation Effects by High-Energy Neutrons	45	--
3.10 Radiation Effects by Heavy Ions	45	--	3.11 Summary of Chapter 3		
46	--	References	46	--	4 Fundamentals of Electronic Devices and Systems
49	--	4.1 Fundamentals of Electronic Components	49	--	4.1.1 DRAM (Dynamic Random Access Memory)
49	--	4.1.2 CMOS Inverter	49	--	4.1.3 SRAM (Static Random Access Memory)
51	--	4.1.4 Floating Gate Memory (Flash Memory)	51	--	4.1.5 Sequential Logic Devices
53	--	4.1.6 Combinational Logic Devices	54	--	4.2 Fundamentals of Electronic Systems
55	--	4.2.1 FPGA (Field Programmable Gate Array)	55	--	4.2.2 Processor
56	--	4.3 Summary of Chapter 4	58	--	References
58	--	5 Irradiation Test Methods for Single Event Effects	61	--	5.1 Field Test
61	--	5.2 Alpha Ray SEE Test	64	--	5.3 Heavy Ion Particle Irradiation Test
66	--	5.4 Proton Beam Test	71	--	5.5 Muon Test Method
75	--	5.6 Thermal/Cold Neutron Test Methods	78	--	5.7 High-Energy Neutron Test
80	--	5.7.1 Medium-Energy Neutron Source by Using Radioisotopes	80	--	5.7.2 Monoenergetic Neutron Test
80	--	5.7.3 Quasi-Monoenergetic Neutron Test	84	--	5.7.4 Spallation Neutron Test
90	--	5.7.5 Attenuation of Neutron Flux and Energy	92	--	5.8 Testing Conditions and Matters That Require Attention
94	--	5.8.1 Memories	94	--	5.8.2 Circuits
94	--	5.9 Summary of Chapter 5	96	--	References
96	--	6 Integrated Device Level Simulation Techniques	107	--	6.1 Overall Multi-scale and Multi-physics Soft-Error Analysis System
107	--	6.2 Relativistic Binary Collision and Nuclear Reaction Models	112	--	6.2.1 Energy Bin Setting for a Particle Energy Spectrum
112	--	6.2.2 Relativistic Binary Collision Model	113	--	6.2.3 ALS (Absolute Laboratory System) and ALLS (Aligned Laboratory System)
115	--	6.3 Intra-nuclear Cascade (INC) Model for High-Energy Neutrons and Protons	119	--	6.3.1 Penetration of a Nucleon into a Target Nucleus
119	--	6.3.2 Calculation of Probability of Binary Collision between Two -- Nucleons in the Target Nucleus	121	--	6.3.3 Determination of Condition in Nucleon-Nucleon Collision
121	--	6.4 Evaporation Model for High-Energy Neutrons and Protons	122	--	6.5 Generalised Evaporation Model (GEM) for Inverse Reaction Cross Sections
125	--	6.6 Neutron Capture Reaction Model	128	--	6.7 Automated Device Modelling
129	--	6.8 Setting of Random Position of Spallation Reaction Point in a Component	131	--	6.9 Algorithms for Ion Tracking
133	--	6.10 Fault Mode Models	135	--	6.11 Calculation of Cross Section
141	--	6.12 Prediction for Scaling Effects of Soft Error Down to 22 nm Design Rule in SRAMs	142	--	6.13 Evaluation of Effects of Heavy Elements in Semiconductor Devices by Nuclear Spallation Reaction
144	--	6.14 Upper Bound Fault Simulation Model	146	--	6.15 Upper Bound Fault Simulation Results
147	--	6.15.1 Electrons	147	--	6.15.2 Muons
148	--	6.15.3 Direct Ionisation by Proton	149	--	6.15.4 Proton Spallation
149	--	6.15.5 Low-Energy Neutron	151	--	6.15.6 High-Energy Neutron Spallation
151	--	6.15.7 Comparison of Secondary Cosmic Rays	151	--	6.16 Upper Bound Simulation Method for SOC (System On Chip)
151	--	6.17 Summary of Chapter 6	154	--	References
154	--	7 Prediction, Detection and Classification Techniques of Faults, Errors and Failures	157	--	7.1 Overview of Failures in the Field
157	--	7.2 Prediction and Estimation of Faulty Conditions due to SEE	159	--	7.2.1 Substrate/Well/Device Level
159	--	7.2.2 Circuit Level	162	--	7.2.3 Chip/Processor Level
164	--	7.2.4 Board Level	166	--	7.2.5 Operating System Level
167	--	7.2.6 Application Level	167	--	7.3 In-situ Detection of Faulty Conditions due to SEE
168	--	7.3.1 Substrate/Well Level	168	--	7.3.2 Device Level
170	--	7.3.3 Circuit Level	170	--	7.3.4 Chip/Processor Level
171	--	7.3.5 Board/OS/Application Level	174	--	7.4 Classification of Faulty

Conditions	175 -- 7.4.1 Classification of Faults	175 -- 7.4.2
Classification of Errors in Time Domain	175 -- 7.4.3 MCU Classification	
Techniques of Memories in Topological Space Domain	177 -- 7.4.4	
Classification of Errors in Sequential Logic Devices	183 -- 7.4.5	
Classification of Failures: Chip/Board Level Partial/Full Irradiation Test	183 -- 7.5 Faulty Modes in Each Hierarchy	183 -- 7.5.1 Fault Modes
	183 -- 7.5.2 Error Modes	186 -- 7.5.3 Failure Modes
	189 -- 7.6	
Summary of Chapter 7	193 -- References	195 -- 8 Mitigation
Techniques of Failures in Electronic Components and Systems	207 --	
8.1 Conventional Stack-layer Based Mitigation Techniques, Their Limitations and Improvements	207 -- 8.1.1 Substrate/Device Level	207
-- 8.1.2 Circuit/Chip/Processor Layer	211 -- 8.1.3 Multi-core	
Processor	225 -- 8.1.4 Board/OS/Application Level	227 -- 8.1.5 Real-Time Systems: Automotives and Avionics
	229 -- 8.1.6 Limitations and Improvements	230 -- 8.2 Challenges for Hyper Mitigation Techniques
	232 -- 8.2.1 Co-operation of Hardware and Software	232 -- 8.2.2
Mitigation of Failures under Variations in SEE Responses	232.	
8.2.3 Cross-Layer Reliability (CLR) /Inter-Layer Built-In Reliability (LABIR)	235 -- 8.2.4 Symptom-Driven System Resilient Techniques	236
-- 8.2.5 Comparison of Mitigation Strategies for System Failure	238 --	
8.2.6 Challenges in the Near Future	238 -- 8.3 Summary of Chapter 8	
240 -- References	240 -- 9 Summary	249 -- 9.1 Summary of
Terrestrial Radiation Effects on ULSI Devices and Electronic Systems	249	
-- 9.2 Directions and Challenges in the Future	250 -- Appendices	251
-- A.1 Hamming Code	251 -- A.2 Marching Algorithms	252 -- A.3 Why
VB Is Used For Simulation?	253 -- A.4 Basic Knowledge of Visual Basic	253 -- A.5 Database Handling by Visual Basic and SQL
	253 -- A.6	
Algorithms in Text Handling and Sample Codes	254 -- A.7 How to	
Make a Self-Consistent Calculation	255 -- A.8 Sample Code for	
Random Selection of Hit Points in a Triangle	256 -- Index	259.

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