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Titolo	FPGA EDA : Design Principles and Implementation // by Kaihui Tu, Xifan Tang, Cunxi Yu, Lana Josipovi, Zhufei Chu
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ISBN	981-9977-55-X
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (229 pages)
Disciplina	621.395
Soggetti	Computer-aided engineering Compilers (Computer programs) C++ (Computer program language) Open source software Computer science Computer hardware description languages Computer-Aided Engineering (CAD, CAE) and Design Compilers and Interpreters C++ Open Source Theory and Algorithms for Application Domains Register-Transfer-Level Implementation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Device(Chip Design) Modelling -- Design(Application Design) Modelling -- Power Analysis -- Performance(Timing) Analysis -- Area Analysis -- Semi-custom EDA -- High-Level Synthesis -- Logic Synthesis -- Physical Implementation -- Bitstream Configuration -- Summary and Outlook.
Sommario/riassunto	This book focuses on FPGA EDA tools, the very foundation of FPGA technology. Instead of illustrating how to use them, this book dives into the tools themselves, revealing how these tools are being designed and how they may improve. Unlike other semiconductors, FPGA has a distinctive two-stage EDA system: chip design EDA and application design EDA.State-of-the-art algorithms, data models and design

methodologies/standards are the main concerns of this book, and these will be very helpful for FPGA EDA engineers and researchers to obtain a bird's eye view of this complicated knowledge system. In the chip design EDA part, full-custom and semicustom methodologies bring up ASIC-like EDA tools, and in the application design EDA side, typical topics including high-level synthesis, logic synthesis, physical implementation, bitstream configuration, etc., are well discussed.
