1. Record Nr. UNINA9910254227003321 Autore Yu Bei Titolo Design for Manufacturability with Advanced Lithography / / by Bei Yu, David Z. Pan Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 3-319-20385-1 Edizione [1st ed. 2016.] 1 online resource (173 p.) Descrizione fisica 620 Disciplina Soggetti Electronic circuits Microprocessors **Electronics** Microelectronics Circuits and Systems **Processor Architectures** Electronics and Microelectronics, Instrumentation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Introduction -- Layout Decomposition for Triple Patterning -- Layout Decomposition for Other Patterning Techniques -- Standard Cell Compliance and Placement Co-Optimization -- Design for Manufacturability with E-Beam Lithography -- Conclusions and Future Works.-. Sommario/riassunto This book introduces readers to the most advanced research results on Design for Manufacturability (DFM) with multiple patterning lithography (MPL) and electron beam lithography (EBL). The authors describe in detail a set of algorithms/methodologies to resolve issues in modern design for manufacturability problems with advanced lithography. Unlike books that discuss DFM from the product level, or physical manufacturing level, this book describes DFM solutions from a circuit design level, such that most of the critical problems can be

formulated and solved through combinatorial algorithms. Enables readers to tackle the challenge of layout decompositions for different

patterning techniques; Presents a coherent framework, including standard cell compliance and detailed placement, to enable Triple Patterning Lithography (TPL) friendly design; Includes coverage of the design for manufacturability with E-Beam lithography.