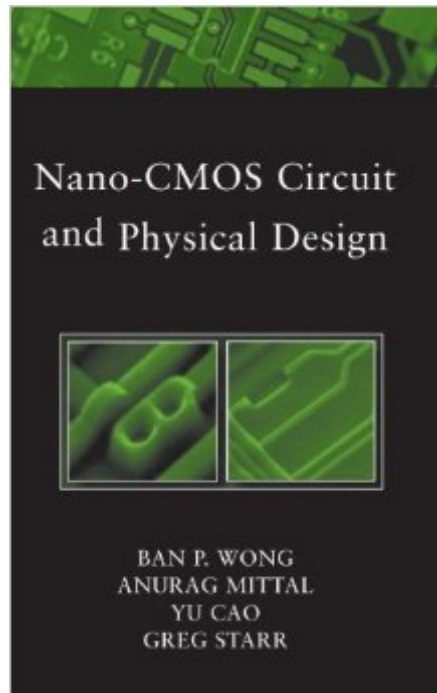# Nano-CMOS Circuit And Physical Design

Synopsis

Based on the authors' expansive collection of notes taken over the years, Nano-CMOS Circuit and Physical Design bridges the gap between physical and circuit design and fabrication processing, manufacturability, and yield. This innovative book covers: process technology, including sub-wavelength optical lithography; impact of process scaling on circuit and physical implementation and low power with leaky transistors; and DFM, yield, and the impact of physical implementation.

Book Information

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Average Customer Review: 5.0 out of 5 stars See all reviews (2 customer reviews)

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Customer Reviews

Although written at the time when BSIM4 was still hot off the press, this book stayed relevant over the years precisely because of its main stated goal of publication: to fight compartmentalization of knowledge in IC design. Isolation between process and circuit design engineers is probably even greater today than it was in 2005. The greatest strength of this book is that it provides measured insight into other worlds in which designers normally don't live in. Not too much, not too little, just enough to perk reader's interest to look further, and at the same time providing insight into complexity of the most advanced manufacturing process mankind has produced to date. I came across this book five years ago preparing for a node switch, and have been coming back to it ever since to read on the effects that have trickled into design space since then. Most of the predictions of the book have materialized, some haven't, and all are in need of an update. While still a valuable resource, revision of this unique volume is needed, hopefully the IEEE, the authors and the

publisher will agree with me and follow through.

A must read for every custom circuit designer working on 90nm and beyond. Warning! this is not for the novice! A wealth of information. Can't wait for the next book by the authors.

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