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Autore	Harpe Pieter
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Altri autori (Persone)	BaschirottoAndrea MakinwaKofi A. A
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Nota di contenuto	Part I Introduction -- Chapter 1 -- Overview of Design Challenges in High-Performance Exg Interfaces -- Chapter 2 -- VCO-based ADCs for direct digitization of ExG signals -- Chapter 3 -- Circuits and Architectures for Neural Recording Interfaces -- Chapter 4 -- Chip-integrated spin detection for Biomedical applications -- Chapter 5 -- Models and Interfaces for Electrochemical Sensors: Architectures and Implementations -- Chapter 6 -- Next-generation molecular detection With a CMOS-capacitive sensor -- Part II -- Noise Shaping ADCs -- Chapter 7 -- The Evolution of Noise-Shaping Successive Approximation (SAR) ADC -- Chapter 8 -- Noise Shaped SAR ADCs Current trends and challenges -- Chapter 9 -- Noise-Shaping SAR ADCS: From Discrete Time to Continuous Time -- Chapter 11 -- Pushing the Limits of kT/C Noise in Delta-Sigma Modulators -- Chapter 12 -- A 2nd Order 5bit

hybrid CT/DT Delta-Sigma ADC implementing novel techniques for ELD compensation and coefficients trimming -- Part III -- Frequency References -- Chapter 13 -- RC Frequency References based on Dual-RC FLLs -- Chapter 14 -- RC Oscillators with Non-linear Temperature Compensation -- Chapter 15 -- RC frequency references based on pulse-density trimmed resistors -- Chapter 16 -- Integrated BAW-based frequency references -- Chapter 17 -- Fast Startup and Fully Differential Crystal Oscillator -- Chapter 18 -- Fast startup and fully differential crystal oscillator.

Sommario/riassunto

This book is based on the 18 lectures presented during the 30th workshop on Advances in Analog Circuit Design. Expert designers present readers with information about a variety of topics at the frontier of analog circuit design, with specific contributions focusing on biomedical electronics, noise shaping ADCs, and frequency references. This book serves as a valuable reference to the state-of-the-art, for anyone involved in analog circuit research and development. Provides a state-of-the-art reference in analog circuit design, written by experts from industry and academia; Presents material in a tutorial-based format; Covers biomedical electronics, noise shaping ADCs, and frequency references.
