# Abstracts

## Workshops (1997 [RFIC])

*"Workshops (1997 [RFIC])." 1997 Radio Frequency Integrated Circuits (RFIC) Symposium 97. (1997 [RFIC]).*

The basic RF components required for the wireless communication markets operating in the 800 MHz - 2.5 GHz frequency range are undergoing a revolutionary change in terms of DC power consumption. On both the research and production front, the reduced power consumption in ICs is recognized as a key competitive advantage. Next to low cost, minimum power consumption is the most translates into smaller, lighter batteries and longer battery lifetime. The power consumption issue is complicated by secondary considerations including cost of required auxiliary circuitry to provide dual polarity supply, reduced off current leakage and isolation or ruggedness. This workshop will consider different device technologies and circuit techniques suitable for reducing DC power especially in receiver and power amplifier portions of the RFICs. Si BJT, MOSFET, GaAS MESFET, HBT and PHEMT technologies will be examined for their inherent properties relative to low voltage requirements. Specific process improvements that would lead to improved low power consumption design will be discussed. Circuit design techniques to reduce power consumption at low voltage will also be considered. Trends in current and future portable system architectures will also affect power consumption issues, and this will be addressed.

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