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## **COMPUTER-AIDED DESIGN, ANALYSIS AND MODELING**

**Chairman: Barry S. Perlman—David Sarnoff Research Center**

**Session Abstract:** This session comprises papers concerned with techniques for the analysis and design of a variety of microwave components. Particular emphasis is placed on improved techniques for the analysis, modeling and design of microwave mixers and frequency multipliers and conceptual issues related to advanced microwave CAD and model extraction.

Specific attention is focused on the use of improved analytical and modeling techniques that offer advantages over prior computational techniques for use in microwave CAD. Methods discussed include the numerical analysis of intermodulation distortion in mixers using harmonic balance, a mixer design approach using time domain analysis, an improved mixer diode model, derivation of optimal operating conditions for a MESFET frequency multiplier, large signal analysis using harmonic balance for MESFET doubler design and the use of fully parameterized modeling techniques to improve the accuracy and flexibility of advanced analog CAD.

**4:00 pm–5:30 pm, May 27, 1988  
Jacob Javits Convention Center, Hall 1E  
Room 3**