

# Foreword

**T**HE 1984 IEEE Microwave and Millimeter-Wave Monolithic Circuits Symposium was held May 29–30 in San Francisco in conjunction with the IEEE MTT-S International Microwave Symposium. A total of 693 people attended this, the third, Monolithic Symposium. This represents a 28-percent increase in attendance over last year's Symposium. I believe that the continuing growth of the Symposium is indicative of the increasing importance of monolithic circuit technology.

The Symposium had five sessions covering 1) Microwave Control Circuits, 2) Signal Processing, 3) Amplifiers and Oscillators, 4) Millimeter-Wave Circuits, and 5) Devices and Circuit Elements. The final two sessions were held jointly with the Microwave Symposium. A total of 24 papers were presented. As in previous years, most of the papers dealt with GaAs monolithic circuits. I came away from the Symposium with the feeling that GaAs monolithic technology has reached a new level of maturity. GaAs wafer processing has become sufficiently reproducible that circuit designers are free to investigate a variety of circuit approaches, some that are only possible using monolithic circuits. It seems clear that significant systems applications

of GaAs monolithic circuits are close at hand, both at microwave and millimeter-wave frequencies.

This Special Issue provides the authors who presented papers at the Symposium with an opportunity to publish a more detailed account of their work. Although only a small portion of the authors took advantage of this opportunity, I believe that the papers included in the Special Issue reflect the strength of this year's Symposium. In the future it is hoped that more papers will be submitted for publication.

I wish to thank the members of the Technical Program Committee for their help in putting together a very strong program. Dr. J. G. Oakes, Symposium Chairman, and the members of the Steering Committee deserve special thanks for running a very successful Symposium. Finally, I wish to acknowledge the efforts of V. G. Gelnovatch in organizing this Special Issue, and N. White for her assistance with the Technical Program.

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He is Manager of the GaAs Microwave and Digital Technology branch in the Central Research Laboratories at Texas Instruments in Dallas, TX. He is responsible for the development of microwave and millimeter-wave devices and monolithic circuits, and high-speed digital circuits. He joined Texas Instruments in 1960 and initially studied the properties of superconducting alloys. Later he studied electromagnetic wave propagation in solid-state plasmas. He began work on GaAs microwave devices in 1965, first on Gunn diodes and later on IMPATT diodes. He assumed his present responsibility in 1975, where the initial emphasis was on GaAs power FET development.

Dr. Wisseman is a member of the American Physical Society, Sigma Xi, Phi Beta Kappa, Tau Beta Pi, and Phi Kappa Phi. He is co-editor of a volume entitled *GaAs*

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