

Session T: (Special Session)

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Smith Chart

Chairman: R. Ham
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The Smith chart has been an indispensable tool in microwave analysis and design for more than 40 years. The basic chart is used extensively for the presentation of complex impedance data. The chart is also intended to be used as a complete design tool for many microwave circuits. The chart is also intended to be used as a complete design tool for many microwave circuits. The advent of the digital computer has relieved some of the necessity for final design with a Smith chart; however, familiarity with the mechanics of impedance manipulation on the chart can greatly enhance the ability of the microwave engineer to closely approach a final design topology through largely intuitive techniques.

Paper T-1: Philip Smith—A Brief Biography by T. S. Saad, Sage Laboratories

Phillip Smith work in the truly formative years of microwave engineering technology. His associates and co-workers included numerous other notable contributors to the art. This presentation gives insight into the man and the environment that generated work of such lasting importance.

Paper T-2: Tutorial and Comments by S. Adam, Adam Microwave Consulting

The Smith Chart is a circular impedance diagram containing all resistance greater than zero and reactances from negative to positive infinity. It is used for the analysis and design of lumped and transmission line circuits as well as the display of complex impedance data; however, this clinical description only scratches the surface in describing the uses of this versatile tool. This brief presentation is intended to be a refresher on basic uses in addition to pointing out less used techniques possible with Phillip Smith's creation.

1:30 p.m.–2:20 p.m., Wednesday, May 9, 1990
West Ballroom C