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MICROWAVE AND MM WAVE FERRITES

Chairman: J. M. Owens—Santa Clara Univ.

Session Abstract: This session looks at analysis techniques for, and applications of ferrite to microwave and millimeter wave components. The first paper studies the application of YIG spheres to tunable millimeter wave waveguide bandpass filters. This extension of an old technology shows much promise at millimeter wave frequencies. Next, a study of E-plane integrated circuitry, ferrite wave guide filters demonstrates a high quality tunable MM wave filter with a good theoretical basis. The third paper presents an excellent theoretical model for a magnetostatic forward volume wave filter and verifies the model with experimental results. Paper number four presents results of a detailed study of a 13 channel S band MSW filter bank. Excellent dynamic range and channel uniformity highlight the work. The next paper studies the application of transfinite element methods to the modeling of ferrite junction devices. The model produces excellent correlation with published experimental results. The last paper details an investigation of a directional coupler which utilized magnetostatic forward volume waves and a coplanar guiding structure. Experimental results are presented.

8:30 am–10:00 am, May 27, 1988
Jacob Javits Convention Center, Hall 1E
Room 4