

# ***Microwave and Millimeter-wave Photonics***

## **Special Issue of the IEEE Transactions on Microwave Theory and Techniques**

**Jointly Prepared with the JOURNAL OF LIGHTWAVE TECHNOLOGY**

The interface between photonics and microwaves has been intriguing researchers for some time. Recent dramatic advances in high-speed optoelectronic components and instrumentation has meant that major applications of hybrid lightwave-microwave systems can now be realized. Applications include antenna remoting, fiberoptic feed networks for phased array antennas and wireless communication networks, delay lines, computer interconnects, cable television signal distribution, personal communications and instrumentation. As the applications of lightwave technology to microwave systems mature, chip level integration of microwave and photonic functions is emerging as a powerful new technology.

Papers are solicited for a special issue of the IEEE Transactions on Microwave Theory and Techniques on "Microwave Photonics," to be published in September, 1995. This issue intends to emphasize the merging of microwave and photonic components, circuits and systems. The special issue will be distributed to subscribers of the Transactions on MTT, and also to subscribers of the Journal of Lightwave Technology. Relevant topics of interest include, but are not limited to, the following areas:

- Optically controlled microwave semiconductor devices and circuits, including MMIC's
- Optical generation, distribution and control of microwave and millimeter wave signals
- Application of lightwave technology to microwaves; phased array antennas, antenna remoting.
- Microwave-Photonic instrumentation
- High-speed analog and digital transmission systems
- High-speed optical transmitters & receivers
- Microwave/millimeter-wave controlled optical devices and circuits
- Chip level integration of photonic and microwave components
- Computer-aided design of Microwave-Photonic circuits and systems

Manuscript requirements for submitted papers are outlined on the outside back cover of the IEEE Transactions on Microwave Theory and Techniques. Authors are requested to send four (4) copies of their manuscripts by January 15, 1995, to one of the guest editors for this special issue:

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