

**CALL FOR  
PAPERS**



THE INSTITUTE OF ELECTRICAL  
AND ELECTRONICS ENGINEERS, INC



**MICROWAVE THEORY AND TECHNIQUES SOCIETY**

**SPECIAL TRANSACTIONS ISSUE  
ON  
PHASED ARRAYS FOR HYPERTHERMIA TREATMENT OF CANCER**

Hyperthermia has been shown to be effective in treatment of cancer, especially when combined with chemo- and radio-therapy. Its use in combating deep-seated tumors has been restricted by problems associated with noninvasive heating of deep tumors. Recent calculations and experimental measurements indicate the possibility that with proper choice of source and applicator parameters, it is possible to produce therapeutic heating of tumors of different volumes in a variety of anatomic sites.

The IEEE Transactions on Microwave Theory and Techniques is planning to publish a Special Issue on Phased Arrays for Hyperthermia Treatment of Cancer in May, 1986. Papers are solicited which describe original work concerned with theoretical, experimental and clinical methods and techniques for improved heating of superficial, accessible and deep-seated tumors. Special emphasis will be placed on state-of-the-art phased array systems and on new technology for the next generation systems. Topics of interest include but are not limited to the following areas:

- Noninvasive ultrasound, RF and microwave techniques
- Interstitial and implanted arrays
- Antennas in lossy media
- Array components and elements
- Optimal architectures and configurations
- Control strategy and excitation schemes
- Thermal field mapping
- Numerical techniques

Authors are requested to submit four copies of the manuscript by October 1, 1985 to guest editor:

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