

## Synthetic Array for Radiometric Retrieval of Thermal Fields in Tissues

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*F. Bardati, M. Mongiardo and D. Solimini. "Synthetic Array for Radiometric Retrieval of Thermal Fields in Tissues." 1986 Transactions on Microwave Theory and Techniques 34.5 (May 1986 [T-MTT] (Special Issue on Phased Arrays for Hyperthermia Treatment of Cancer)): 579-583.*

The feasibility of reconstructing the thermal field in biological tissues from brightness data measured by an array of microwave antennas is investigated through a numerical simulation. The array does not make use of phase information and is synthesized through the Kalman filter algorithm. The obtained results indicate that, by a multispectral technique, such a synthetic array might be able to achieve spatial resolution not only in a transverse direction, but also in depth.

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