

# Abstracts

## Analysis of electrothermal transients and digital signal processing in electrically and thermally nonlinear microwave circuits

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*V. Rizzoli, F. Mastri, A. Neri and A. Lipparini. "Analysis of electrothermal transients and digital signal processing in electrically and thermally nonlinear microwave circuits." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 367-370.*

The paper introduces a new approach to the analysis of nonlinear circuits containing temperature-dependent devices and excited by slowly modulated microwave carriers. For best accuracy and efficiency, the different dynamics of electrical and thermal phenomena are exploited. The electric circuit is simulated by a sequence of HB analyses of equal size, driven by an exact HB analysis loop for the thermal circuit.

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