# Abstracts

## Pulse Propagation in Superconducting Coplanar Striplines

*O.R. Baiocchi, K.-S. Kong and T. Itoh. "Pulse Propagation in Superconducting Coplanar Striplines." 1992 Transactions on Microwave Theory and Techniques 40.3 (Mar. 1992 [T-MTT]): 509-514.*

The Phenomenological Loss Equivalence Method (PEM), the "enhanced" two-fluid model for thin-film super-conducting materials and the dynamical calculation of radiation losses in planar structures are used--in the context of a linear filter approach--to model attenuation and dispersion of ultrafast pulses in coplanar striplines. The numerical simulation of this modeling shows excellent agreement with experimental results available in the literature. Simple relationships between the peak attenuation and delay time of the propagation pulse, and penetration depth at absolute zero and conductivity at critical temperature may open the possibility of using pulse distortion to characterize thin-film, high-temperature super-conducting materials.

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