# Abstracts

## An efficient method for analysis of arbitrary nonuniform transmission lines

*Ke Lu. "An efficient method for analysis of arbitrary nonuniform transmission lines." 1997 Transactions on Microwave Theory and Techniques 45.1 (Jan. 1997 [T-MTT]): 9-14.*

The analytical solution of an ideal linear varied nonuniform transmission line (LNTL) has been obtained and the exact linear two-port ABCD matrix of LNTL has been given correctly for the first time. By using cascaded LNTL sections to approximate an arbitrary characteristic impedance profile, a new technique has been presented in this paper for analyzing an arbitrary nonuniform transmission line (NTL). The technique is far better than the conventional technique in terms of the computational accuracy and intensity since it uses a piecewise-linear characteristic impedance profile in place of the stepped profile used by the conventional technique. Several numerical examples have been given to demonstrate the method.

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