# Abstracts

## A Simple Numerical Method for Studying the Propagation Characteristics of Single-Mode Graded-Index Planar Optical Waveguides (Short Papers)

*A.N. Kaul, S.I. Hosain and K. Thyagarajan. "A Simple Numerical Method for Studying the Propagation Characteristics of Single-Mode Graded-Index Planar Optical Waveguides (Short Papers)." 1986 Transactions on Microwave Theory and Techniques 34.2 (Feb. 1986 [T-MTT]): 288-292.*

A simple numerical method based on the Runge-Kutta method is presented to compute the propagation constant, the modal field, and the cutoff wavelength corresponding to the fundamental TE/sub 0/ and TM/sub 0/ modes of a planar optical waveguide with an arbitrary refractive index profile. The method is much simpler and requires less computational effort than the earlier reported numerical methods. We have also used the technique for an estimation of the effect of the /spl nabla/epsilon term in TM modes.

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