

## Calculation of TM/sub 0n/ Dispersion Relations in a Corrugated Cylindrical Waveguide

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The TM/sub 0n/-mode Maxwell equations in a cylindrical geometry are converted to a state-vector system of coupled linear differential equations, in which the boundary conditions for a waveguide of varying diameter are included in the coefficient matrix of the state-vector system. The particular problem of periodic boundary conditions is solved for a waveguide with a sinusoidally undulating wall.

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