Abstracts

Perturbation Theory Generalized to Arbitrary (p,l) Modes in a Fabry-Perot Resonator (Letters)

C.W. Erickson. "Perturbation Theory Generalized to Arbitrary (p,l) Modes in a Fabry-Perot Resonator (Letters)." 1977 Transactions on Microwave Theory and Techniques 25.11 (Nov. 1977 [T-MTT]): 958-959.

The first-order perturbation calculation that was carried out to include the effects of the usually neglected delta² psi / delta z² term in the wave equation for pure radial modes (l = 0) is generalized to the case of arbitrary p,l modes. The result, although requiring more algebra, is similar to that of the l= 0 case; the correction term is a monotonically increasing function of both p and l, and reduces to the original expression as l --> 0.

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