Abstracts

Modes in Radial Wavebeam Resonators (1965 [MWSYM])

G. Goubau and F. Schwering. "Modes in Radial Wavebeam Resonators (1965 [MWSYM])." 1965 G-MTT Symposium Program and Digest 65.1 (1965 [MWSYM]): 17-20.

The electromagnetic fields in beam waveguides and Fabry-Perot resonators can be described in terms of axially propagating reiterative beam modes having a cross-sectional field distribution which can be reconstituted at periodoc intervals. In the resonator case, the period of iteration is one round trip of the beam between the two reflectors. The iteration is accomplished either by diffraction effected by Iimiting the beam cross-section or by transformation of the cross-sectional phase distribution of the beam. The first case applies to the iris-type beam waveguides and to Fabry-Perot resonators with plane reflectors and the second to lens-type beam waveguides and to resonators with spherical reflectors.

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