Abstracts

Analogous Propagation Modes in Inhomogenous Plasma and Tapered Waveguide (Correspondence)

H. Lashinsky. "Analogous Propagation Modes in Inhomogenous Plasma and Tapered Waveguide (Correspondence)." 1964 Transactions on Microwave Theory and Techniques 12.2 (Mar. 1964 [T-MTT]): 256-258.

An interesting analogy exists between the propagation of transverse electromagnetic (TE) waves in a plasma (with no magnetic field) and in conventional waveguide. This analogy reflects the similar roles played by the volume conduction current in the plasma and the wall conduction current in the waveguide and is of interest in that it provides insight into plasma propagation and suggests the possibility of simulating certain microwave properties of inhomogeneous plasma by means of appropriate waveguide configurations.

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