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wedges bounded by plane boundaries: 6.1 Introduction ; 6.2 Singularities at the edges of material wedges ; 6.3 The wedge with penetrable boundaries ; 6.4 The wedge with impenetrable boundaries ; 6.5 Examples : application to half-planes ; 6.6 Edge conditions for the induced surface currents -- ch. 7. Tip singularities at the apex of a material cone: 7.1 Introduction ; 7.2 Algebraic singularities of an H-type field ; 7.3 Algebraic singularities of an E-type field ; 7.4 The case of impenetrable cones ; 7.5 Confluence and logarithmic singularities ; 7.6 Application to some widely used actual boundary conditions ; 7.7 Numerical solutions of the transcendental equations satisfied by the minimal index -- ch. 8. Temporal discontinuities: 8.1 Universal initial conditions ; 8.2 Linear mediums in the generalized sense ; 8.3 An illustrative example -- References -- Index.

Sommario/riassunto

"This book presents some new approaches and basic results connected with the discontinuities of the electromagnetic field. The discontinuities in question may be (1) the bounded jump discontinuities on the interfaces between two media or on the material sheets which model very thin layers or (2) unbounded values at the edge of wedge type structures or (3) unbounded values at the tips of conical structures. The book involves many examples as well as problems (exercises) to be solved by the readers"--
