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Sommario/riassunto

Provides a self-contained account on applications of electromagnetic reciprocity theorems to multiport antenna systems

The reciprocity theorem is among the most intriguing concepts in wave field theory and has become an integral part of almost all standard textbooks on electromagnetic (EM) theory. This book makes use of the theorem to quantitatively describe EM interactions concerning general multiport antenna systems. It covers a general reciprocity-based description of antenna systems, their EM scattering properties, and further related aspects.

Beginning with an introduction to the subject, *Electromagnetic Reciprocity in Antenna Theory* provides readers first with the basic prerequisites before offering coverage of the equivalent multiport circuit antenna representations, EM coupling between multiport antenna systems and their EM interactions with scatterers, accompanied with the corresponding EM compensation theorems.

In addition, the text:

- Presents basic prerequisites including the definition of the notation, integral transformations, and EM reciprocity theorems in their general form
- Explores multiport antenna forward-scattering theorem, multiport antenna matching theorem and uniqueness theorem
- Supplements each chapter with a solved illustrative example

Electromagnetic Reciprocity in Antenna Theory is an excellent text for EMC and antenna researchers and students of the subject as well.