The Multilevel Fast Multipole Algorithm (MLFMA) for Solving Large-Scale Computational Electromagnetics Problems
Ozgur Ergul, Levent Gurel

DESCRIPTION

The Multilevel Fast Multipole Algorithm (MLFMA) for Solving Large-Scale Computational Electromagnetic Problems provides a detailed and instructional overview of implementing MLFMA. The book:

- Presents a comprehensive treatment of the MLFMA algorithm, including basic linear algebra concepts, recent developments on the parallel computation, and a number of application examples

- Covers solutions of electromagnetic problems involving dielectric objects and perfectly-conducting objects

- Discusses applications including scattering from airborne targets, scattering from red blood cells, radiation from antennas and arrays, metamaterials etc.

- Is written by authors who have more than 25 years experience on the development and implementation of MLFMA

The book will be useful for post-graduate students, researchers, and academics, studying in the areas of computational electromagnetics, numerical analysis, and computer science, and who would like to implement and develop rigorous simulation environments based on MLFMA.
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