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The fast multipole method: Numerical implementation. (English) Zbl 0974.78012
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The paper studies algorithmic problems and computational aspects for solving integral equations for electromagnetic scattering problems with the fast multipole method. The paper analyses several techniques to reduce the complexity constant of the method and provides impressive numerical results.

Reviewer: [Gunther Schmidt \(Berlin\)](#)

MSC:

- 78M25 Numerical methods in optics (MSC2010)
- 65R10 Numerical methods for integral transforms
- 78A25 Electromagnetic theory, general
- 65N38 Boundary element methods for boundary value problems involving PDEs
- 65Y20 Complexity and performance of numerical algorithms

Cited in **88** Documents

Keywords:

[fast multipole method](#); [electromagnetic theory](#); [iterative method](#); [matrix compression algorithm](#); [computational aspects](#)

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