

1164-65-50

Dinh-Liem Nguyen* (dlnghuyen@ksu.edu), Manhattan, KS 66506. *Orthogonality sampling method for electromagnetic inverse scattering problems.*

We consider the electromagnetic inverse scattering problem that aims to reconstruct the location and shape of anisotropic scattering objects from far-field measurements. We will discuss our recent results on the orthogonality sampling method for solving the inverse problem. Compared with classical sampling methods (e.g. the linear sampling method, the factorization method) the orthogonality sampling method is simpler to implement, can work with one-wave data, and its stability can be easily justified. This is joint work in part with Isaac Harris. (Received January 09, 2021)