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Thu Thi Anh Le* (thule@ksu.edu), 1544 International Ct, Manhattan, 66502, and **Dinh-Liem Nguyen, Trung Thanh Truong** and **Hayden Schmidt**. *Imaging of 3D objects with experimental data using orthogonality sampling methods.*

We consider the electromagnetic inverse scattering problem that aims to reconstruct the location and shape of an unknown object from the electromagnetic field scattered by that object. It has applications in radar and nondestructive testing. In this talk, we investigate a modified version of the Orthogonality Sampling Method (OSM) for Maxwell's equations. This modification allows the method to work with more types of polarization associated with the data. Numerical results testing against 3D experimental data from the Fresnel institute will be presented. The results show that the modified OSM performs better than its original version in real data verification. This is joint work with Dinh-Liem Nguyen, Hayden Schmidt, and Trung Truong. (Received August 27, 2021)