Gang Bao* (bao@math.msu.edu), Department of Mathematics, Wells Hall, Michigan State University, East Lansing, MI 48824, and Junshan Lin and Faouzi Triki. Inverse Source Problems for Electromagnetics. Preliminary report.

This work is concerned with the well-posedness study and numerical solution of the inverse source problem. By using multiple frequency boundary measurements of the field, our recent results on uniqueness and stability of the inverse problem will be presented. A numerical method based on the continuation approach will be discussed along with examples. The on-going and future research on this and related topics will be highlighted. (Received September 21, 2009)