

Abstract

Inverse boundary value problems arise in diverse application areas, such as geophysical prospecting, optical imaging, and medical imaging. Of particular interest is the Calderon problem, or electrical impedance tomography problem, which is known to be challenging to solve due to the severe ill-posedness. In this talk, I will discuss our recent studies of the Calderon problem and present solution methods based on multiple frequency data, deep learning, and optimal transportation, respectively. Ongoing research will also be highlighted.