SPEAKER:

Boaz Haberman, University of Chicago

TITLE:

Recovering a rough magnetic potential from boundary data

ABSTRACT:
The Gel'fand-Calderón inverse problem is to determine the coefficients of an elliptic operator from boundary measurements of solutions (the Dirichlet-to-Neumann map). Known methods of solving this problem rely on the existence of exponentially increasing solutions to the equation. I will discuss Carleman estimates, which appear in the construction of these solutions, and methods to overcome the loss of derivatives in these estimates.