SPEAKER:

Ru-yu Lai, University of Minnesota

TITLE:

An inverse problem from condense matter physics

ABSTRACT:

Bose-Einstein condensates (BECs) are a state of matter in which supercooled atoms condense into the lowest quantum state. I will discuss the inverse problem arising from BECs in which the features of the background potential can be extracted by the propagation of vortex dipoles. In particular, unique determination of the potential and its associated reconstruction formula will be discussed.