

SEMINAR
CENTER FOR APPLIED MATHEMATICS AND SCIENCE
DEPARTMENT OF MATHEMATICS
UNIVERSITY OF WEST GEORGIA

12:00 PM, TUESDAY, APRIL 10, 2018, VENUE: TBA

Speaker: **Dr. Thanh Nguyen, Department of Mathematics, Rowan University**

Title: **An inverse problem in nondestructive testing of metal materials using alternating current potential drop measurements**

Abstract: I will talk about an inverse problem in which the electric conductivity and magnetic permeability of a metal plate are to be determined from measurements of the potential drop generated by an alternating current which is injected into the metal plate from the surface. The potential drop data is acquired at multiple frequencies. Mathematically, this is an inverse problem for the Maxwell's system. The model is then reduced to a Helmholtz equation. I will discuss a linearization approach for solving this inverse problem and show some numerical results for both simulated data and real experimental data.

All are welcome.