## $T_{\text{EMPLE}} \, U_{\text{NIVERSITY}} \, M_{\text{ATHEMATICS}} \, C_{\text{OLLOQUIUM}}$

## Hongjie Dong

Brown University

will speak on

## Elliptic and parabolic equations in convex polytopes with discontinuous coefficients

ABSTRACT: I will present some recent results on the  $W_p^2$ -estimate for the boundary value problem of second-order elliptic and parabolic equations in simple convex polytopes with irregular coefficients. Equations with discontinuous coefficients in non-smooth domains emerge from problems in mechanics, engineering, and biology, to name a few. Part of the talk is based on joint work with Doyoon Kim.

Monday, May 6, 2013
Lecture at 4:00 pm
Coffee, tea, and refreshments from 3:40 pm
Room 617, Wachman Hall
Department of Mathematics