

# COLLOQUIUM

DEPARTMENT OF MATHEMATICS AND STATISTICS  
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## **Solvability of Dirichlet Problem with Nonlinear Integro-differential Operator**

### **Abstract**

We will discuss the solvability of a class of Dirichlet Problem associated with nonlinear integro-differential operator. The main ingredient is the probabilistic construction of continuous supersolution via the identification of the continuity set of the exit time operators under Skorohod topology. We will demonstrate the main idea using some examples with fractional PDEs. Most of this talk would be accessible to a graduate student in math department.

**Tuesday, October 18, 2016**  
**1:30 – 2:30 PM**  
**Room MSC 386**

(Refreshments at 1-1:30 PM in the kitchen area adjacent to 368 MSC)