Title:

Versions of Dirichlet Boundary Value Problem for p-Harmonic Functions in Non-smooth Domains.

Abstract:

The classical problem of finding a function that is harmonic in a Euclidean domain, with prescribed boundary values, is called the Dirichlet boundary value problem. There are analogs of this problem for domains in metric measure spaces equipped with a doubling measure supporting a p-Poincar\'e inequality. Whether we are in the familiar Euclidean setting or more general metric setting, posing this question involves asking "in what sense is the boundary value achieved?" In this talk we will discuss three alternative notions in the metric setting.

Speaker

Nages Shanmugalingam