

# Differential Equations and Applied Math Seminar

Texas State University

2-3pm November 20 , 2015

326 Derrick Hall

**Speaker:** Dr. Ray Treinen, Texas State University

**Title:** Functions of Bounded Variation and Sets of Finite Perimeter

**Abstract:** While Sobolev spaces are fairly well known from the theory of partial differential equations, it is sometimes more natural to work with functions of bounded variation and sets of finite perimeter. These ideas were brought into the spotlight in the 1950's by de Giorgi, and we present here a more recent treatment by Evans and Gariepy. We will continue to the coarea formula, and work towards proving the isoperimetric inequality.

Interested faculty and graduate students are encouraged to attend.