

Analysis Seminar

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Tuesday, September 30, 2014

1:00 p.m., HH-3017

Anisotropic Sobolev Capacity with Fractional Order

Abstract:

In this talk, I will introduce the anisotropic Sobolev capacity with fractional order and develop some basic properties for this new object. Applications to the theory of anisotropic fractional Sobolev spaces are provided. In particular, I will discuss geometric characterizations for a non-negative Radon measure μ that naturally induces an embedding of the anisotropic fractional Sobolev class $\dot{\Lambda}_{\alpha,K}^{1,1}$ into the μ -based-Lebesgue-space $L^{n/\beta}_{\mu}$ with $0 < \beta < n$.