

Analysis Seminar Thursday January 23, 2014

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Title: *Regularity of sets with constant normal in Carnot groups*

Abstract: I will define the notion of Carnot groups (nilpotent stratified Lie groups), then I will recall De Giorgi's Rectifiability Theorem in Geometric Measure Theory (in Euclidean spaces) and I will mention the problem of rectifiability in Carnot groups. The proof of De Giorgi's Rectifiability Theorem relies on the following fact: sets with constant normal are halfspaces. Unfortunately this property is not true for all Carnot groups. However I will show a large class of Carnot groups which satisfies the property.