

**Seminario de análisis matemático y aplicaciones**  
**Analisi matematikoa eta aplikazioak mintegia**

**Free boundary problems for harmonic measure  
and uniform rectifiability**

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**ABSTRACT:**

The past few years there has been a renaissance of new results of harmonic measure in domains in the Euclidean space in connection with (uniform) rectifiability. The connection between boundedness of Riesz transform and rectifiability due to the celebrated result of Nazarov, Tolsa and Volberg, and the theory of Calderon-Zygmund operators for non-homogeneous measures have played a significant role in the flourishing of this field. In this talk, I will discuss some recent advances in (quantitative) one-phase and two-phase free boundary problems for harmonic measure, and time permitting, some PDE characterizations of uniform rectifiability.

**LUGAR / LEKUA:**

Sala de seminarios de la sección de matemáticas  
Matematika ataleko mintegi gela

**DÍA Y HORA / EGUNA ETA ORDUA:**

08/02/2018, 12:00