SEMINARIO

ECUACIONES EN DERIVADAS PARCIALES

Primera Sesi´n $16:00$ **hrs.**

Expositor

Enrico Valdinoci

(Weierstrass Institute)

Título

Bernstein's theorem for fractional minimal surfaces

Abstract:

We discuss a geometric minimization problem arising in a fractional, nonlocal setting. We recall some regularity and rigidity results and we discuss the analogue of Bernstein's theorem for this kind of minimal surfaces (i.e. whether minimal graphs are necessarily affine).

Segunda Sesión $17:00$ **hrs**

Expositor

Serena di Pierro
(School of mathematics, University of Edinburgh)

Título

Asymptotics of a reaction-diffusion equation driven by the fractional Laplacian

Abstract:

Inspired by some models arising in crystal dislocation, we consider an evolution equation driven by the fractional Laplacian with a small stress that is close to constant

in space and time. We show that the solution, in the suitable space and time scale, may be seen as the superposition of a finite number of transition layers. Each transition is centered at a point that evolves by following the external stress and subject to a repulsive potential of fractional type.

Miércoles 14 de Agosto del 2013, Sala de Seminarios DIM, 5*to* piso, Blanco Encalada 2120.