

Mariel Saez Relaxation of mean curvature flow via the parabolic Ginzburg-Landau equation

TIME:

7 Nov 2006, 17:00 - 19:00

LOCATION:

Freie Universität Berlin - Fachbereich Mathematik und Informatik Arnimallee 2-6, 14195 Berlin-Dahlem (Raum 031)

I will discuss a method to represent sets evolving under mean curvature flow as nodal sets of the limit of solutions to the parabolic Ginzburg-Landau equation, given by

More specifically, first I will consider a curve evolving under curve shortening flow and a potential function with two minima at and

- . Then I will show that there are solutions to equation (*) that as
- , satisfy

Then I will show that similar results can be proved for networks of curves evolving under curve shortening flow. I will also discuss some corollaries that can be derived from this representation.