Seminario de Investigación

"Analysis of the thresholding scheme for mean curvature flow in codimension two"

Resumen:

Tim Laux
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Tim Laux is a Morrey Visiting Assistant Professor at UC Berkeley hosted by Craig Evans. Since his PhD studies with Felix Otto at the Max Planck Institute for Mathematics in the Sciences he has been working in the calculus of variations, nonlinear partial differential equations and applied analysis. His main focus lies on geometric evolution equations such as mean curvature flow. He is further interested in numerical analysis and probability theory.

The thresholding scheme, also known as diffusion generated motion, is an efficient numerical algorithm for computing mean curvature flow (MCF). In this talk I will briefly discuss the fairly well-understood case of hypersurfaces, and then present our first convergence analysis in the case of codimension two. The proof is based on a new generalization of the minimizing movements interpretation for hypersurfaces (Esedoglu-Otto '15) by means of an energy that approximates the Dirichlet energy of the state function.
This is joint work with Aaron Yip.

La charla será presentada en inglés.

Miércoles 19 de diciembre, 2018 – 2:00 p.m.
Mini auditorio, Edificio CIMPA-EMA