

Regularity in diffusion models with gradient activation.

Damião Júnio Gonçalves Araújo
Universidade Federal da Paraíba

Abstract

This talk discusses sharp regularity estimates for solutions of highly degenerate fully nonlinear elliptic equations. More specifically, we focus on free boundary models in which a nonlinear diffusion process drives the system only in the region where the gradient surpasses a given threshold.

This is joint work with Aelson Sobral, Universidade Federal da Paraíba - Brazil, and Eduardo Teixeira, University of Central Florida - EUA.