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Joint Geometric Analysis Seminar

(Part of MIST program)

A Brakke type regularity for the parabolic Allen-Cahn equation

Dr. Shengwen Wang University of Warwick

Abstract

We will talk about an analogue of the Brakke's local regularity theorem for the ε parabolic Allen-Cahn equation. In particular, we show uniform $C^{2,\alpha}$ regularity for the transition layers converging to smooth mean curvature flows as ε tends to 0 under the almost unit-density assumption. This can be viewed as a diffused version of the Brakke regularity for the limit mean curvature flow. This is joint work with Huy Nguyen.

Date: 5 November 2021 (Friday)

Time: 3:00pm – 4:00pm (Hong Kong time)

ZOOM link: https://cuhk.zoom.us/j/91805734715