

Department of Mathematics

The Institute of Mathematical Sciences

數學系

數學科學研究所

The Chinese University of Hong Kong

香港中文大學

Phone: (852) 3943 7988 • Fax: (852) 2603 5154 • Email: <u>dept@math.cuhk.edu.hk</u> (Math. Dept.) Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Joint Geometric Analysis Seminar

(Part of MIST program)

Lecture Series on Geometric Analysis: Geometric flows on open manifolds

Dr. Luke Peachey The Chinese University of Hong Kong

Abstract

Second talk: The evolution of open curves under curve shortening flow.

Despite the technicalities of the two flows differing vastly, mean curvature flow and Ricci flow exhibit similar behaviour, and as such, we may ask questions about the curve shortening flow analogous to the ones discussed last week. After first finishing our discussion of Ricci flow and Ricci flow spacetimes from last week, we will formulate a uniqueness conjecture for the evolution of properly embedded curves within the plane, and show how such a conjecture breaks inside general ambient surfaces.

Date: November 30, 2023 (Thursday)

Time: 10:30am-noon

Venue: AB1 G03