MATH-IMS Joint Colloquium Series
The Chinese University of Hong Kong

This MATH-IMS Joint Colloquium Series in pure mathematics is organized by the Department of Mathematics and the Institute of Mathematical Sciences (IMS) at the Chinese University of Hong Kong. The series focus on all areas of pure mathematics together with theoretical developments and applications.

Date: September 17, 2020 (Thursday)
Time: 10am – 11am (Hong Kong Time)
Zoom Link: https://cuhk.zoom.us/j/98846779826

Mean curvature flow of generic initial data

Speaker: Professor Otis Chodosh
Stanford University

Abstract: Mean curvature flow is the analogue of the heat equation in extrinsic differential geometry. Because mean curvature flow is nonlinear, there are necessarily singularities. In general, the singular behavior of the flow could be extremely complicated and is not well understood. I will discuss recent work with K. Choi, C. Mantoulidis, and F. Schulze concerning the mean curvature flow of a "generic" initial surface. In particular, we show that certain singularities do not arise in the case of a generic initial surface.

Bio: Professor Otis Chodosh obtained his B.S. in Mathematics and Physics at Stanford University in 2010. After receiving his Masters of Advanced Studies in Mathematics from University of Cambridge in 2011, he returned to Stanford for his Ph.D. degree working under the supervision of Prof. Simon Brendle and Michael Eichmair. After graduating in 2015, he has taken up a postdoctoral position at the University of Cambridge and also a Veblen Research Instructor at Princeton and the Institute of Advanced Study. Prof. Chodosh returned to the Department of Mathematics at Stanford University as an Assistant Professor since 2019. Prof. Chodosh is a widely recognised young rising star in the field of geometric analysis and partial differential equations.