

Department of Mathematics The Institute of Mathematical Sciences **The Chinese University of Hong Kong**



Phone: (852) 3943 7988 / 3943 7989 • Fax: (852) 2603 5154 • Email: dept@math.cuhk.edu.hk Phone: (852) 3943 8036 / 3943 8038 • Fax: (852) 3942 1020 • Email: ims@ims.cuhk.edu.hk Rm. 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong Unit 601, Academic Building No. 1, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Joint Geometric Analysis Seminar Existence and regularity for the Brakke flow

Professor Yoshihiro Tonegawa Tokyo Institute of Technology

Abstract: The Brakke flow is a generalized mean curvature flow in the framework of geometric measure theory. The notion is general enough to include motion of singular objects such as networks and soap bubble clusters while it is equipped with a powerful regularity theory. I mainly explain the content of the recent existence theorem and give an outline of how to construct the time-discrete approximate flows. Ref. (1) L. Kim, Y. Tonegawa, On the mean curvature flow of grain boundaries, Ann. l'Institut Fourier (Grenoble) 67, (2017) 43-142, (2) K. Kasai, Y. Tonegawa, A general regularity theory for weak mean curvature flow, Calc. Var. PDEs 50, (2014) 1-68.

Date: 15 March 2018 (Thursday)
Time: 10:30 a.m. – 11:30 a.m.
Venue: Room 502A, Academic Building No.1 The Chinese University of Hong Kong, Shatin

All are Welcome!