

1154-49-476

Yoshihiro Tonegawa* (tonegawa@math.titech.ac.jp), 2-12-1 Ookayama, Meguro-Ku, Tokyo, 152-8551, Japan. *An existence theorem for Brakke flow with fixed boundary condition.*

Suppose that we are given an arbitrary closed countably n -rectifiable set in a strictly convex $n + 1$ dimensional domain, with the assumption that the set has finite n -dimensional Hausdorff measure and the complement is not connected. Then, we show that there exists a non-trivial Brakke flow starting from the given set and fixing the boundary data for all time. The result gives a non-trivial solution of the Plateau-type problem in a varifold setting, which should allow soap film like singularities. (Joint work with Salvatore Stuvard of U. Texas Austin.) (Received September 05, 2019)