EXISTENCE AND NONEXISTENCE OF THE

CENTER OF EXPANSION

IN EVOLVING A CONVEX CLOSED CURVE

Yu-Chu Lin

Abstract:

We discuss the existence and nonexistence of the center of expansion when we expand a given convex closed curve $\gamma_0 \subset \mathbb{R}^2$ to infinity. In case the center exists, we can use the Aleksandrov reflection result of Chow-Gulliver to show that it lies on a certain convex plane region interior to γ_0.

Results in this talk is a joint work with Professor Dong-Ho Tsai.