Asymptotic Behavior of Discrete Kuramoto Model on Graphs

chun-bo lian[1], ge bin[1], and kai-xin xing[2]

[1]Haerbin Engineering University
[2]Harbin Engineering University

May 5, 2020

Abstract

In this paper, we study the asymptotic behavior of the discrete Kuramoto model on graphs. The main research method is: by using the theory of graph limits, we rigorously justify that the solutions of the initial value problems (IVPs) for the discrete Kuramoto model with external drive convergence to the solution of the initial value problem for its continuum limit on deterministic graphs, W-random graphs and SW graphs.

Hosted file

`Lian-Ge-Xing-AMA.pdf` available at https://authorea.com/users/296765/articles/425792-asymptotic-behavior-of-discrete-kuramoto-model-on-graphs