Følner sequence

Kai Prince SFHEA

2025-07-30

1 Introduction

Definition 1.1. We define a right-Følner sequence in Γ as a sequence $\Phi = (\Phi_N)_{N \in \mathbb{N}}$ of finite subsets of Γ satisfying

$$\lim_{N \to \infty} \frac{|(\Phi_N \cdot \gamma^{-1}) \cdot \Phi_N|}{|\Phi_N|} = 1$$

for all $\gamma \in \Gamma$.

Definition 1.2. Similarly, we define a *left-Følner sequence* in Γ as a sequence $\Phi = (\Phi_N)_{N \in \mathbb{N}}$ of finite subsets of Γ satisfying

$$\lim_{N\to\infty}\frac{|(\gamma^{-1}\cdot\Phi_N)\cap\Phi_N|}{|\Phi_N|}=1$$

for all $\gamma \in \Gamma$.

Definition 1.3. We call a sequence a $F\emptyset$ lner sequence if it is both a left and right F\u00f6lner sequence.

A related definition is the following:

Definition 1.4. We call define density of a subset $A \subseteq \Gamma$ with respect to a Følner sequence, Φ , as

$$d_{\Phi}(A) = \lim_{N \to \infty} \frac{|\Phi_N \cap A|}{|\Phi_N|},$$

if it exists.

2 Results

Theorem 2.1 (The Test Theorem). This is a Theorem.

? Tip

•

This is a test tip.

3 More Information

You can learn more about controlling the appearance of HTML output here: https://quarto.org/docs/output-formats/html-basics.html