Course Name Introduction to Ergodic Theory

Course Number 201.2.0141

Course web page https://www.math.bgu.ac.il/en/teaching/spring2022/courses/ergodic-theory

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Office Hours https://www.math.bgu.ac.il/en/teaching/hours

Abstract

Requirements and grading

Course topics

1. Measure preserving systems for Borel group actions

2. Ergodicity, ergodic decomposition, mixing and weak mixing

3. Minimality and unique ergodicity

4. Mean and pointwise ergodic theorems for a single transformation

5. (*) Joinings

6. (*) Decomposition of a measure relative to a partition and conditional measures

7. (*) Entropy

8. (*) Ergodic theorems for general groups and amenability.

(*) denotes optional topics to be covered according to class level and teacher discretion.

Information may change during the first two weeks of the term. Please consult the webpage for updates.