The Department of Mathematics
2021–22–B term

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
Lecturer  Prof. Tom Meyerovitch, <mtom@bgu.ac.il>, Office 313
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.

¹Information may change during the first two weeks of the term. Please consult the webpage for updates