

The Department of Mathematics

2021–22–A term

Course Name Expander graphs and expansion in groups

Course Number 201.2.0411

Course web page

<https://www.math.bgu.ac.il/en/teaching/fall2022/courses/expander-graphs-and-exp>

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

Abstract

Requirements and grading¹

Course topics

1. Expander graphs and their applications – Equivalent definitions, Mixing Lemma, Alon–Boppana Theorem, Applications, Constructions
2. Kazhdan Property (T) - group representations (short intro.), Cayley and Schrier graphs, Property (T) – definition and properties, examples, construction of expander graphs via property (T)
3. Additional topics (as time allows)

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