Department of Mathematics, BGU

AGNT

On *Wednesday, March ,30 2022*

At *16:00 − 17:15*

In *101-*

Bogdan Adrian Dina (HUJI)

will talk about

Isogenous (non-)hyperelliptic CM Jacobians: constructions, results, and Shimura class groups. (101-)

Abstract: Jacobians of CM curves are abelian varieties with a particularly large endomorphism algebra, which provides them with a rich arithmetic structure. The motivating question for the results in this talk is whether we can find hyperelliptic and non-hyperelliptic curves with maximal CM by a given order whose Jacobians are isogenous. Joint work with Sorina Ionica, and Jeroen Sijsling considers this question in genus 3 by using the catalogue of CM fields in the LMFDB, and found a (small) list of such isogenous Jacobians. This talk describes the main constructions, some results, and Shimura class groups.