Department of Mathematics, BGU

AGNT

On *Tuesday, November ,29 2022*

At *12:40 – 13:40*

In *101-*

Paolo Dolce (BGU)

will talk about

Numerical equivalence of R-divisors and Shioda-Tate formula for arithmetic varieties

Abstract: Arakelov geometry offers a framework to develop an arithmetic counterpart of the usual intersection theory. For varieties defined over the ring of integers of a number field, and inspired by the geometric case, one can define a suitable notion of arithmetic Chow groups and of an arithmetic intersection product. In a joint work with Roberto Gualdi (University of Regensburg), we prove an arithmetic analogue of the classical Shioda-Tate formula, relating the dimension of the first Arakelov-Chow vector space of an arithmetic variety to some of its geometric invariants. In doing so, we also characterize numerically trivial arithmetic divisors, confirming part of a conjecture by Gillet and Soulé.