

Department of Mathematics, BGU

Jerusalem - Be'er Sheva Algebraic Geometry Seminar

On Wednesday, December ,23 2020

At 15:00 – 16:30

In

Mihran Papikian (Pennsylvania State University)

will talk about

Drinfeld discriminant function and Fourier expansion of harmonic cochains

Abstract: I will discuss my joint work with Fu-Tsun Wei from Tsing Hua University in Taiwan.

Let K be the completion of $\mathbb{F}_q(T)$ at $1/T$ and $r \geq 2$ be an integer. In an ongoing project, we study modular units on the Drinfeld symmetric space Ω^r over K , harmonic cochains on the edges of the Bruhat-Tits building of $\mathrm{PGL}_r(K)$, and the cuspidal divisor groups of certain Drinfeld modular varieties of dimension $r-1$. In particular, we obtained a higher dimensional analogue of a well-known result of Ogg for classical modular curves $X_0(p)$ of prime level.