

**Speaker:** Mihran Papikian

**Title:** Modular varieties over function fields and arithmetic applications

**Abstract:** In this talk I will discuss some arithmetic applications of modular varieties of D-elliptic sheaves, which are the analogues of Shimura varieties over function fields. The concept of D-elliptic sheaves was introduced by Laumon, Rapoport and Stuhler in their proof of the local Langlands conjecture for  $GL(n)$  in the equicharacteristic case. I will discuss the existence of rational points on these modular varieties, applications to hereditary orders, and explicit Jacquet-Langlands isogenies.