Atkin-Lehner theory for Drinfeld Modular forms

Maria Valentino
University of Calabria
maria.valentino@unical.it

Let $S_k(N)$ be the space of cusp forms of level $\Gamma_0(N)$ with $N \in \mathbb{Z}$. Atkin-Lehner theory deals with the notion of oldforms, namely those coming from a lower level $M|N$, and newforms, i.e. the orthogonal complement of the space of oldforms with respect to the Petersson inner product. Moreover, it is also concerned with the construction of a basis for $S_k(N)$ made up by eigenfunctions for the Hecke operators $T_n$ with $n$ prime to $N$. In this talk we shall present some recent advances on the analogous theory for Drinfeld modular forms, which are certain analogues over the function field $\mathbb{F}_q[T]$ of classical modular forms.