

Abstract:

This talk will focus on transcendence theory over function fields in positive characteristic. In particular, we relate Carlitz-Goss zeta values, periods of Drinfeld modules, logarithms, and more, to special values of solutions of Frobenius difference equations.

By way of a result that equates the dimension of the associated difference Galois group to the transcendence degree of its period matrix, we will discuss various algebraic independence theorems over function fields.