1160-11-104 **Andreas Maurischat*** (maurischat@fh-aachen.de), Aachen, Germany. *Taylor coefficients of Anderson generating functions.*

Algebraic extensions of the rational function field $K = \mathbb{F}_q(\theta)$ can be obtained by adjoining torsion points of Drinfeld modules over K. The Anderson generating functions for such Drinfeld modules are defined as certain power series $\sum c_i t^i \in \bar{K}[[t]]$ which converge for all $|t| \leq 1$ with respect to (an extension of) the norm associated to the infinite place of K. In particular, they converge at all roots of unity. The main goal of this talk is to explain how the coefficients of the Taylor expansions of the Anderson generating functions at roots of unity give rise to prime power torsion points of the Drinfeld module. This is joint work with Rudy Perkins. (Received August 07, 2020)