1027-11-155 **Chieh-Yu Chang** (d917202@oz.nthu.edu.tw), Department of Mathematics, National Tsing-Hua University, Hsin-Chu, Taiwan, and **Matthew Papanikolas*** (map@math.tamu.edu), Department of Mathematics, Texas A&M University, College Station, TX 77843. *Periods of Drinfeld modules and difference Galois groups.* Preliminary report.

We introduce a Tannakian formalism for Drinfeld modules and relate it to the Galois theory of certain Frobenius difference equations. In this way we determine the transcendence degrees of fields generated by periods and quasi-periods of Drinfeld modules and more generally Anderson t-modules. More precisely, we show that the transcendence degree of the period matrix of a Drinfeld module is equal to the dimension of its Galois group. We will discuss certain Galois group calculations and various applications, especially to periods of Drinfeld modules. (Received February 25, 2007)