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**Christelle Vincent\*** ([vincent@math.wisc.edu](mailto:vincent@math.wisc.edu)), Department of Mathematics, 480 Lincoln Drive, Madison, WI 53706. *Weierstrass points on the Drinfeld modular curve  $X_0(\mathfrak{p})$* . Preliminary report.

For  $q$  a power of a prime, consider the ring  $\mathbb{F}_q[T]$ . Due to the many similarities between  $\mathbb{F}_q[T]$  and the ring of integers  $\mathbb{Z}$ , we can define for  $\mathbb{F}_q[T]$  objects that are analogous to elliptic curves, modular forms, and modular curves. In particular, for  $\mathfrak{p}$  a prime ideal in  $\mathbb{F}_q[T]$ , we can define the modular curve  $X_0(\mathfrak{p})$ , and study the reduction modulo  $\mathfrak{p}$  of its Weierstrass points, as is done in the classical case by Rohrlich, and Ahlgren and Ono. In this talk we construct a Drinfeld modular form for  $\Gamma_0(\mathfrak{p})$  whose divisor is supported at the Weierstrass points of  $X_0(\mathfrak{p})$ , and some partial results on the reduction modulo  $\mathfrak{p}$  of this divisor are obtained. (Received June 6, 2011)