1086-VJ-2861 **Alfeen Hasmani*** (`ahasmani09@lions.molloy.edu`), **Lindsey Hiltner**, **Angela Kraft**, **Daniel Scofield**, **Kirsti Wash** and **Jim Brown**. *Classifying Extensions of a Characteristic p Local Field.*

The classification of extensions of $\mathbb{Q}_p$ has been studied for many years. In particular, Jones and Roberts constructed an online database that identifies finite extensions of $\mathbb{Q}_p$. For each extension, they describe how to compute various invariants (for example, the Galois group). We extend the results by looking at local fields of characteristic p. In particular, we show how the results are analogous to Jones and Roberts when the characteristic does not divide the degree of the extension. Moreover, following from the work of Pauli and Roblot, we show that the defining polynomials of the totally tamely ramified extensions are generated in a similar manner to the totally tamely ramified extensions of $\mathbb{Q}_p$. Furthermore, if the characteristic, p, does divides the degree of the extension, we prove that there are infinitely many totally wildly ramified extensions of degree p. (Received September 25, 2012)