1006-16-161 **David J Saltman*** (`saltman@math.utexas.edu`), The University of Texas at Austin, Mathematics Department, 1 University Station C1200, Austin, TX 78712-0257. *Cyclic Algebras over p-adic Curves.*

Let Q_p be the p-adic field and K the function field of a curve over Q_p. It is useful to view K as the function field of a surface, projective over the $p-adic$ integers $\mathbf{Z}_p$. In previous work the author showed that as long as q is prime to p, any division algebra D of order q in the Brauer group has degree bounded by q^2. As part of the proof, one sees that often one has shown, when q is prime, that D is a crossed product. Thus one is interested in degree q ($q \neq p$ prime) division algebras over K. We show they are all cyclic. Along the way, we initiate a geometric study of ramification in dimensions larger that 1, and we will conjecture about what may be true over general surfaces and even general fields. (Received February 14, 2005)