1056-11-1110   **Michael W Daub*** (`mwdaub@math.berkeley.edu`), **Allison Pacelli**, **Michael Rosen**, **Jaclyn Lang**, **Mona Merling** and **Natee Pitiwan**. *Function Fields with Class Number Indivisible by a Prime ℓ.*

It is known that infinitely many global function fields of any degree m have class number divisible by a given integer n. However, significantly less is known about the indivisibility of class numbers of such fields. Pacelli and Rosen explicitly constructed an infinite class of global function fields of any degree with class number indivisible by 3, generalizing a result of Ichimura for quadratic extensions. We generalize their method to show that, for any prime ℓ, there are infinitely many function fields of an arbitrary degree, subject to a few restrictions, with class number indivisible by ℓ. (Received September 20, 2009)