1018-14-165   **Bjorn Poonen*** (`poonen@math.berkeley.edu`), Department of Mathematics 3840, Berkeley, CA 94720-3840. *Gonality of modular curves in characteristic p.*

Let k be an algebraically closed field of characteristic p. We prove that in any sequence of distinct modular curves over k, the k-gonality tends to infinity. And we give an application to the function field analogue of a uniform boundedness statement for the image of Galois on torsion of elliptic curves. (Received March 05, 2006)