1097-11-208 **Alvaro Lozano-Robledo*** (alvaro.lozano-robledo@uconn.edu), Department of Mathematics, University of Connecticut, 196 Auditorium Road, U-3009, Storrs, CT 06269. *Uniform boundedness in terms of ramification.*

Let $d \geq 1$ be fixed. Let F be a number field of degree d, and let E/F be an elliptic curve. Let $E(F)_{\text{tors}}$ be the torsion subgroup of $E(F)$. In 1996, Merel proved the uniform boundedness conjecture, i.e., there is a constant $B(d)$, which depends on d but not on the chosen field F or on the curve E/F, such that the size of $E(F)_{\text{tors}}$ is bounded by $B(d)$. Moreover, Merel gave a bound (exponential in d) for the largest prime that may be a divisor of the order of $E(F)_{\text{tors}}$. In 1996, Parent proved a bound (also exponential in d) for the largest p-power order of a torsion point that may appear in $E(F)_{\text{tors}}$. It has been conjectured, however, that there is a bound for the size of $E(F)_{\text{tors}}$ that is polynomial in d. In this talk we discuss that under certain hypotheses there is a linear bound for the largest p-power order of a torsion point defined over F, which in fact is linear in the maximum ramification index of a prime ideal of the ring of integers F over (p). (Received January 22, 2014)