1077-11-173 **Joseph H. Silverman***, Mathematics Department - Box 1917, Brown University, Providence, RI 02912, and **Chantal David**, Department of Mathematics and Statistics, Concordia University, Montréal, Québec H3G 1M8, Canada. *Elliptic Pseudoprimes and Elliptic Carmichael Numbers.* Preliminary report.

Let $E/\mathbb{Q}$ be an elliptic curve and let $Q \in E(\mathbb{Q})$ be a non-torsion point. We define an *elliptic pseudoprime* for the pair (E, Q) to be a composite integer n such that E has good reduction at all primes dividing n and such that $(n+1-a_n)\overline{Q} = \overline{O}$ in $E(\mathbb{Z}/n\mathbb{Z})$. We then define n to be an *elliptic Carmichael number* for E if it is an elliptic pseudoprime for every point in $E(\mathbb{Z}/n\mathbb{Z})$. In this talk I will discuss properties and computations related to elliptic pseudoprimes and Carmichael numbers, including an elliptic Korselt criterion. (Received August 07, 2011)