

1014-11-1206

**Sungkon Chang\*** ([changsun@mail.armstrong.edu](mailto:changsun@mail.armstrong.edu)), Department of Mathematics, 11935 Abercorn St., Savannah, GA 31419. *Quadratic twists of an elliptic curve with small Selmer rank*. Preliminary report.

In the literature, it seems that little is known in general about the distribution of quadratic twists of an elliptic curve over  $\mathbb{Q}$  with “small” Selmer rank while it is known that there are infinitely many quadratic twists with Mordell-Weil rank 0. Let  $E/\mathbb{Q}$  be an elliptic curve without rational 2-torsion points. In this talk, we shall discuss how to find a quadratic twist with small 2-Selmer rank. This result together with our earlier result on Selmer ranks implies that there are infinitely many quadratic twists with small 2-Selmer rank. (Received September 27, 2005)