1098-57-300 **Tim D Cochran*** (cochran@rice.edu) and **Arunima Ray** (arunima.ray@rice.edu). *Shake concordant knots that are not concordant.* Preliminary report.

If K is a knot in $S^3 = \partial\mathbb{B}^4$, then the 4-manifold W_K obtained by adding a single two-handle along K with framing zero, has $H_2 \cong \mathbb{Z}$. The **shake genus of K** is the minimum genus of an embedded surface representing a generator of $H_2(W_K)$. The question was asked whether the shake genus is equal to the slice genus of K. In particular if the shake genus is zero then the knot is called shake slice. There has been no progress since 1976 on the question: is every shake slice knot a slice knot? We answer , in the negative, a relative version of this question. Specifically we show that there are many shake-concordant knots that are not concordant. We also show that none of the invariants τ, s, slice genus, is invariant under shake concordance. (Received January 28, 2014)