## 1154-VU-1532 Vincent Longo\* (vincent.longo@huskers.unl.edu), NE. Tunnel Number and Unknotting Numbers of Twist Spun Knots. Preliminary report.

In 2004, Satoh proved that b-1 is an upper bound for the unknotting number of the twist spin of a classical knot K, where b is the bridge number of K. This bound, however, does not seem to be sharp for many knots. For meridionally primitive knots K, we provide a strict improvement to this upper bound by showing that the tunnel number t(K) is an upper bound for the unknotting number of the twist spin of K. We additionally show that t(K) + 1 is an upper bound for any K. (Received September 16, 2019)