1068-57-158 **Vera Vertesi*** (vertesi@math.mit.edu) and **John Etnyre** (etnyre@math.gatech.edu).

Positive braids are transversaly simple. Preliminary report.

The standard contact structure in the 3-space is a plane field given by the kernel of the 1-form dz-ydx. A knot whose tangents are transverse to the contact plane field are called transverse, and knots whose tangents lie in the contact plane field are Legendrian. In this talk we describe the building blocks of Legendrian (and transverse) representations of braids in a solid torus, and using these blocks we deduce results about Legendrian and transverse braiding. In particular we prove that positive braids are transversaly simple. This means that a topologically defined invariant (the self linking number) is enough to distinguish transverse representations of any given positive braid. This is a joint work (in progress) with J. Etnyre. (Received January 17, 2011)