1085-13-9 **Olgur Celikbas*** (celikbaso@missouri.edu), 323 Mathematical Sciences Bldg, University of Missouri, Columbia, MO 65211, and **Srikanth Iyengar**, **Greg Piepmeyer** and **Roger Wiegand**. *Torsion in the tensor product of modules.* Preliminary report.

Let $R$ be a commutative local complete intersection ring of codimension $c$ and let $M$ and $N$ be finitely generated $R$-modules, where $c \geq 2$. I will discuss certain depth conditions on the modules $M$, $N$ and $M \otimes_R N$ under which the vanishing of $\eta_c^R(M,N)$ ($\eta(-,-)$ is a pairing initially defined by H. Dao) forces the vanishing of $\operatorname{Tor}_{>0}^R(M,N)$ and implies the depth equality $\operatorname{depth}(M)+\operatorname{depth}(N) = \operatorname{depth}(R)+\operatorname{depth}(M \otimes_R N)$. The talk is based on a joint work with Srikanth Iyengar, Greg Piepmeyer and Roger Wiegand. (Received September 01, 2012)