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Olgur Celikbas* (s-ocelikb1@math.unl.edu), University of Nebraska - Lincoln, Department of Mathematics, 311 Avery Hall, Lincoln, NE 68588–0130. *Vanishing of Tor over complete intersections.*

In this talk we are concerned with the vanishing of Tor over complete intersection rings. Building on results of C. Huneke, D. Jorgensen and R. Wiegand, and, more recently, H. Dao, we obtain new results showing that good depth properties on the R -modules M , N and $M \otimes_R N$ force the vanishing of $\mathrm{Tor}_i^R(M, N)$ for all $i \geq 1$. (Received September 18, 2009)