1050-57-131   **Olga Plamenevskaya*** (`olga@math.sunysb.edu`), Department of Mathematics, Stony Brook University, Stony Brook, NY 11790. *Transverse knots and their branched covers.*

We study transverse knots via their cyclic branched covers, which are contact manifolds naturally associated to transverse knots. We show that in many cases branched covers of two transverse knots are contactomorphic if the knots have the same smooth type and self-linking number. This happens even when the knots are not transversely isotopic. In particular, many pairs of transverse knots distinguished by Heegaard Floer transverse invariant (due to Ozsvath-Szabo-Thurston), as well as knots constructed by Birman-Menasco, yield contactmorphic branched covers. (Joint with S.Harvey and K.Kawamuro.) (Received March 02, 2009)