1107-57-492 Patricia Cahn\* (pcahn@math.upenn.edu) and Vladimir Chernov. Knots Transverse to a Vector Field.

We study knots transverse to a fixed vector field V on a 3-manifold M up to the corresponding isotopy relation. We show this classification is particularly simple when V is the coorienting vector field of a tight contact structure, or when M is irreducible and atoroidal. We also apply our results to study loose Legendrian knots in overtwisted contact manifolds, and generalize results of Dymara and Ding-Geiges. (Received January 20, 2015)