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Lenhard Ng* (ng@math.duke.edu), Mathematics Department, box 90320, Duke University, Durham, NC 27708. *Knot contact homology and transverse knots.*

This talk is an advertisement for a technique that uses contact topology to obtain invariants of smooth manifolds and submanifolds, via cotangent and conormal bundles. For knots, this technique produces a knot invariant called knot contact homology. I will survey some general properties of knot contact homology and present recent work that enhances it to produce a strong invariant of transverse knots. This is partly joint work with Tobias Ekholm, John Etnyre, and Michael Sullivan. (Received August 15, 2010)