1093-57-261 Olga Plamenevskaya*, Department of Mathematics, Stony Brook University, Stony Brook, NY 11794. Loose Legendrians and the Plastikstufe.

In $(\mathbb{R}^3, \xi_{std})$, Legendrian knot theory is very rich. However, in overtwisted contact 3-manifolds, Legendrian knots disjoint from an overtwisted disk can be completely described by their classical invariants. Murphy discovered that in higher-dimensional contact manifolds, such loose knots (whose Legendrian type is determined by classical invariants) exist in abundance; any knot becomes loose after a certain stabilization procedure. This contrasts sharply with the 3-dimensional case: Murphy's result is not limited to "overtwisted" manifolds. In fact, the tight vs. overtwisted dichotomy is not known in higher dimensions, although there are some conjectural generalizations of the overtwisted disk, such as a "plastikstufe". It turns out that in presence of a plastikstufe, all knots that are disjoint from it are loose. (Joint with E. Murphy, K. Niederkrüger, and A. Stipsicz.) (Received August 17, 2013)