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David H Crombecque* (dcrombecqu@brynmaur.edu), Bryn Mawr college, Department of Mathematics, 101 north Merion Avenue, Philadelphia, PA 19010-2899. *Nonorientable Contact Structures on 3-manifolds.*

Since Bennequin's work, it is well known that in 3-dimensional topology, there is a dichotomy between TIGHT and OVERTWISTED contact structures. While overtwisted structures are well understood, the study of tightness from a 3-dimensional perspective is still at its early stage. In most studies, contact structures are always considered orientable. (Recall that a contact 3-manifold is always orientable, but its contact structure does NOT have to be). It is often thought that if one has to deal with a nonorientable structure, one may work with its orientation double cover. Our motivation is to realize that one cannot merely switch to the orientation double cover when studying tightness. In this talk, we will present some examples of nonorientable tight contact structures which have an overtwisted orientation double cover. (Received September 06, 2007)