1131-81-302Y Berest and A Eshmatov* (alimjon.eshmatov@utoledo.edu), 2801 W Bancroft St, Toledo,
OH 43606, and Wai-kit Yeung. Perverse sheaves and knot contact homology.

We present a universal construction, called homotopy braid closure, that produces invariants of links in R^3 starting with a braid group action on objects of a (model) category. Applying this construction to the natural action of the braid group B_n on the category of perverse sheaves on the two-dimensional disk with singularities at n marked points, we obtain a differential graded (DG) category that gives knot contact homology in the sense of L. Ng. As an application, we show that the category of finite-dimensional modules over the 0-th homology of this DG category is equivalent to the category of perverse sheaves on R^3 with singularities at most along the link. [This is joint work with Yu. Berest and .] (Received July 17, 2017)