1083-57-154 Lenhard Ng and Dan Rutherford* (drruther@uark.edu). Satellites of Legendrian knots and representations of the Chekanov-Eliashberg algebra.

The Chekanov-Eliashberg differential graded algebra (DGA) is an invariant of Legendrian knots in standard contact \mathbb{R}^3 that is a particular instance of Legendrian contact homology. There is a well-known correspondence (due to Fuchs-Ishkanov and Sabloff) between augmentations of the Chekanov-Eliashberg DGA and normal rulings of the front projection of L. We generalize this to a correspondence between finite-dimensional representations of the DGA and certain normal rulings of satellites of L and derive several consequences. In particular, the existence of ungraded representations of any given dimension depends only on the Thurston-Bennequin number and underlying smooth knot type of L. (Received August 26, 2012)