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Lenhard Ng and **Dan Rutherford*** (drrutherford@uark.edu). *Satellites of Legendrian knots and representations of the Chekanov-Eliashberg algebra*. Preliminary report.

In the late 1990's, Chekanov and Eliashberg introduced a differential graded algebra (DGA) associated to a Legendrian knot L in \mathbb{R}^3 . There is a well-known correspondence (due to Fuchs-Ishkanov and Sabloff) between augmentations of this DGA and normal rulings of the front projection of L . We generalize this to a correspondence between certain normal rulings of satellites of L and finite-dimensional representations of its DGA. We derive some consequences by exploiting relationships between normal rulings and the Kauffman and HOMFLY-PT knot polynomials. In particular, we are able to show that the existence of (ungraded) representations of any particular dimension depends only on the underlying framed knot type of L . (Received February 04, 2012)