

1093-57-242

Christopher R Cornwell* (cornwell@math.duke.edu). *Knot contact homology and representations of the knot group.*

Knot contact homology (KCH) is a robust invariant of knots defined using the symplectic geometry of the cotangent bundle. KCH shares a number of relationships with other knot invariants. These relationships (and others that are conjectured) are found by studying augmentations of the underlying DGA. We will discuss a specialization of KCH where it is known that a certain kind of representation of the knot group (a KCH representation) induces an augmentation on KCH. We show that, in fact, augmentations on this specialization all arise from KCH representations in this way. We also discuss how this correspondence enhances our understanding of the two-variable augmentation polynomial and its relationship to the A-polynomial. (Received August 16, 2013)