1166-57-152      **Christopher R Cornwell\*** (`ccornwell@towson.edu`). *The double branched cover of a knot and augmentations in knot contact homology.*

We will discuss a relationship that exists between augmentations in knot contact homology and the $\mathrm{SL}(2,\mathbb{C})$ character variety of the double branched cover over a knot. This relationship provides a computational tool for determining whether the double branched cover of a knot $K$ is $\mathrm{SU}(2)$-cyclic (i.e. every representation of its fundamental group into $\mathrm{SU}(2)$ has cyclic image). Some related results and open questions will be discussed. (Received February 16, 2021)