

1106-53-1243

Caitlin Levenson* (cleverso@math.duke.edu). *Legendrian Knots, Augmentations, and Rulings.*

A Legendrian knot in \mathbb{R}^3 with the standard contact structure is a knot for which $dz-ydx=0$. Given a Legendrian knot, one can associate the Chekanov-Eliashberg differential graded algebra (DGA) over $\mathbb{Z}/2$. Fuchs and Sabloff showed there is a correspondence between augmentations to $\mathbb{Z}/2$ of the DGA and rulings of the knot diagram. Etnyre, Ng, and Sabloff showed that one can define a lift of the Chekanov-Eliashberg DGA over $\mathbb{Z}/2$ to a DGA over $\mathbb{Z}[t, t^{-1}]$. This talk will give an extension of the relationship between rulings and augmentations to $\mathbb{Z}/2$ of the DGA over $\mathbb{Z}/2$, to a relationship between rulings and augmentations to a field of the DGA over $\mathbb{Z}[t, t^{-1}]$. No knowledge of the Chekanov-Eliashberg DGA will be assumed. (Received September 11, 2014)