

1125-53-1053

Ziva Myer* (zmyer@brynmawr.edu). *Product Structures for Generating Family Cohomology of Legendrian Submanifolds*. Preliminary report.

In contact geometry, invariants of Legendrian submanifolds in 1-jet spaces have been obtained through a variety of techniques. I will discuss how I am enriching one invariant, Generating Family Cohomology, by constructing a product structure on the cohomology groups. The construction uses moduli spaces of Morse flow trees – spaces of intersecting gradient trajectories of functions whose critical points encode Reeb chords of the Legendrian. This product structure lays the foundation for an A-infinity algebra structure for the Legendrian that shows, in particular, that this product gives Generating Family Cohomology a ring structure. (Received September 14, 2016)