1171-57-183   **Juanita Pinzon-Caicedo*** (`jpinzonc@nd.edu`), **Tye Lidman** and **Allison Miller**. *Satellite Operations that are not homomorphisms.* Preliminary report.

Abstract: Two knots K_0 and K_1 are said to be smoothly concordant if the connected sum $K_0 \# m(K_1^r)$ bounds a disk smoothly embedded in the 4-ball. Smooth concordance is an equivalence relation, and the set $\mathcal{C}$ of smooth concordance classes of knots is an abelian group with connected sum as the binary operation. Satellite operations, or the process of tying a given knot P along another knot K to produce a third knot P(K), are powerful tools for studying the algebraic structure of the concordance group. In this talk I will describe conditions on the pattern P that suffice to conclude that the function $P : \mathcal{C} \to \mathcal{C}$ is not a homomorphism. This is joint work with Tye Lidman and Allison Miller. (Received August 10, 2021)