

1148-53-11

**Gareth James Speight\***, Gareth.Speight@uc.edu. *A  $C^m$  Whitney Extension Theorem for Horizontal Curves in the Heisenberg Group.*

We characterize those mappings from a compact subset of  $\mathbb{R}$  into the Heisenberg group  $\mathbb{H}^n$  which can be extended to a  $C^m$  horizontal curve in  $\mathbb{H}^n$ . The characterization combines the classical Whitney conditions with an estimate comparing changes in the vertical coordinate with those predicted by the Taylor series of the horizontal coordinates.

Joint work with Andrea Pinamonti and Scott Zimmerman (Received October 23, 2018)