

1165-53-55

Gareth Speight* (gareth.speight@uc.edu). *Lusin Approximation of Maps in Carnot Groups.*

The classical Lusin theorem states that measurable functions can be approximated by continuous functions except for a set of small measure. Higher smoothness versions give conditions under which functions can be approximated by C^m functions up to a set of small measure. We discuss some recent results of this type for horizontal curves in the Heisenberg group and real-valued maps whose domain is a Carnot group. These results are obtained by combining Euclidean techniques with Whitney extension results in these settings. (Received January 11, 2021)