

Meeting: 1000, Albuquerque, New Mexico, SS 13A, Special Session on Analysis and Geometry in Carnot-Caratheodory Spaces

1000-35-158 **Thomas J. Bieske*** (tbieske@math.usf.edu), Dept. of Mathematics, 4202 E. Fowler Ave., PHY 114, Tampa, FL 33620, and **Juan J. Manfredi**. *Properties of Subelliptic Cones in Carnot Groups*.

In this talk, we construct the Carnot-Caratheodory cones based on viscosity infinite harmonic functions. Using this construction, we show that viscosity infinite harmonic functions enjoy comparison with cones. As a consequence, functions that enjoy comparison with cones are absolute minimizers. Lastly, we deduce analytic properties of these cones. These results extend the Euclidean results of Crandall, Evans, and Gariepy. (Received August 23, 2004)