

1042-35-27

Luca Capogna* (lcapogna@uark.edu), Department of Mathematics, University of Arkansas, Fayetteville, AR 72701. *Regularity of certain minimal surfaces in the sub-Riemannian Heisenberg group.*

I will discuss recent work with G. Citti and M. Manfredini on the regularity of minimal intrinsic graphs in the Heisenberg group endowed with a sub-Riemannian metric. We start with a weak notion of solution, a vanishing viscosity solution, and prove C^∞ regularity in the case of Heisenberg group of dimension five and higher and infinite differentiability along the Legendrian foliation for the Heisenberg group of dimension three. (Received July 25, 2008)