

Optimal partial regularity of weak solutions for nonlinear sub-elliptic systems in Heisenberg groups

Speaker: Jialin Wang

Seminar on November 3, 2014

Abstract This talk will be concerned with partial regularity of weak solutions for nonlinear sub-elliptic systems in divergence form in Heisenberg groups. Based on a generalization of method of \mathcal{A} -harmonic approximation, A general criterion for weak solutions to be regular in the neighborhood of a given point is established. In particular, we obtain directly the optimal Hölder exponent for horizontal derivatives of weak solutions on its regular set.