Meeting: 1002, Pittsburgh, Pennsylvania, SS 12A, Special Session on Geometric Analysis and Partial Differential Equations in Subelliptic Structures

1002-35-113 **Lijing Sun*** (`lijing@math.wayne.edu`), Department of Mathematics, Wayne State University, Detroit, MI 48202. *A CR Poincare inequality on the sphere in complex space.*

In this talk, we will present a sharp CR Poincare inequality on spheres in complex spaces. The main novelty of this inequality is we use the complex tangential gradients rather than the Laplace-Beltrami gradients. Such Poincare ineqaulity follows from a representation formula for functions on the sphere in terms of the complex tangential gradient together with a truncation argument. (Received September 09, 2004)