

1023-46-104

Lijing Sun* (lijing@math.wayne.edu), Department of Mathematics, Wayne State University, 656 W. Kirby St., FAB 1150, Detroit, MI 48202. *A Poincaré inequality on the complex sphere in CR setting.*

The main purpose of this work is to prove a Poincaré inequality with sharp exponent on the sphere in complex space. We use the complex tangential gradient on the sphere instead of the usual Laplace-Beltrami gradient on the sphere. Our main result is established with the aid of a representation formula. (Received July 31, 2006)