

1083-60-53

**Aurel Iulian Stan\*** (stan.7@osu.edu) and **Alberto Lanconelli**. *Some Hölder inequalities for norms of Poissonian Wick products*. Preliminary report.

Some important inequalities for the norms of Wick products, generated by the Gaussian probability measures and the probability distributions of the square of normal random variables, have been proven in the recent years. These inequalities involve the second quantization operator of some constants times the identity operator. We will prove first some sharp inequalities for the  $L^1$ ,  $L^2$ , and  $L^\infty$  norms of Poissonian Wick products. We use then Stein Analytic Interpolation Theorem to find inequalities about the  $L^p$  norms of Poissonian Wick products, for  $p$  other than 1, 2, and  $\infty$ . (Received August 12, 2012)