1052-58-8 **Bruce Driver**, **Len Gross** and **Laurent Saloff-Coste*** (lsc@math.cornell.edu). *Subelliptic heat kernel measures and holomorphic functions on complex Lie groups.*

Consider the Hilbert space of holomorphic functions that are square integrable with respect to the canonical Gaussian measure and the Hilbert space of sequence (a_n) with norm given by $\|(a_n)\|^2 = \sum_0^\infty |a_n|^2/n!$ A version of a celebrated result of Segal and Bargmann states that the Taylor map $f \mapsto (a_n) = (f^{(n)}(0))$ is a unitary map between these two Hilbert spaces. We will discuss extensions of this result in the context of complex Lie groups when the role of Gauss measure is played by the choice of a subelliptic heat kernel measure. (Received August 24, 2009)