PROBABILITY AND MATHEMATICAL STATISTICS Vol. 14, Fasc. 2 (1993), pp. 327–345

DOMAINS OF ATTRACTION OF STABLE MEASURES ON THE HEISENBERG GROUP

Hans-Peter Scheffler

Abstract: Let H_d be the (2d + l)-dimensional Heisenberg group and $(\mu_t)_{t\geq 0}$ be a continuous convolution semigroup of probability measures on H_d . Let moreover μ_1 be full. A probability measure ν is said to belong to the domain of attraction of μ_1 if there exists a sequence $(\sigma_n)_n$ of automorphisms of H_d such that $\sigma_n \nu^n \to \mu_1$ weakly. We prove some simple necessary and sufficient conditions on ν for the existence of such automorphisms if $(\mu_t)_{t\geq 0}$ has no Gaussian component. Furthermore, the domain of normal attraction of a Gaussian measure on H_d is considered.

2000 AMS Mathematics Subject Classification: Primary: -; Secondary: -; **Key words and phrases:** -

THE FULL TEXT IS AVAILABLE HERE