PROBABILITY AND MATHEMATICAL STATISTICS Vol. 20, Fasc. 1 (2000), pp. 141–149

A BERNSTEIN PROPERTY OF MEASURES ON GROUPS AND SYMMETRIC SPACES

Piotr Graczyk Jean-Jacques Loeb

Abstract: In this paper we consider a Bernstein property of probability measures on groups introduced by Neuenschwander. We discuss this property for discrete groups, compact groups, nilpotent groups and some solvable groups. In all these cases we show that a measure having the Bernstein-Neuenschwander property must be concentrated on an Abelian subgroup. We conclude with an application of this result to the Gaussian measures on non-compact symmetric spaces.

1991 AMS Mathematics Subject Classification: Primary 43A05, 62H05; Secondary 60E05, 62E10.

Key words and phrases: Bernstein property of measures, probability measures on non-commutative groups, Gaussian measures on symmetric spaces.

THE FULL TEXT IS AVAILABLE HERE