



AMERICAN UNIVERSITY
WASHINGTON, D C

THE DEPARTMENT OF MATHEMATICS AND STATISTICS COLLOQUIUM

Random Walks on Groups

Jeff Hakim

American University

jhakim@american.edu

3:30 p.m. on Tuesday, March 4th

Ward 105

Abstract: How many times does one need to shuffle a deck of cards before the cards become reasonably random? This is just one of a family of related questions which can be solved using the theory of random walks on groups. We will consider an easy example. The theory we will describe uses a mixture of basic probability (Markov chains) and finite group theory (representations of finite groups). The key ingredient (the theory of Gelfand pairs) is a powerful tool in various areas of mathematics, including number theory and harmonic analysis.

Presented by

THE AU MATH/STAT DEPARTMENT AND THE AU CHAPTER OF SIGMA XI

For additional information, contact

Richard Brown (brown@american.edu), *Artur Elezi* (aelezi@american.edu) or

Alex White (whiteale@american.edu)

Next Colloquium:

Tuesday, March 25, 2003 Ward 105

Kaushik Ghosh, George Washington University
Inference Based on Spacings
