University of Waterloo
Department of Pure Mathematics
Waterloo, ON

Pure Mathematics
Student Algebra Seminar

Speaker
Maris Ozols, IQC

How to Generate a Random Unitary Matrix

Abstract

I will explain how to generate sample unitary matrices uniformly at random from the Haar measure. The main ingredients will be QR decomposition and Householder reflections. The discussion also applies to orthogonal matrices, and can be generalized for symplectic ones if needed.

Everyone who attends this talk will receive a FREE random unitary matrix (generated specifically for you!) that can be used for any practical purpose, e.g. your research, playing lottery, etc.

This talk is based on the article "How to Generate Random Matrices from the Classical Compact Groups" by F.Mezzadri, available here:

http://www.ams.org/notices/200705/fea-mezzadri-web.pdf

Wednesday, February 25, 2009

3:30 pm - 4:20 PM

Room MC 5046