

FELIX KLEIN SEMINAR

Speaker: Brian Hall
University of Notre Dame

Date: Thursday, January 31, 2019

Time: 2:00 PM

Location: 258 Hurley Hall

Lecture Title:

Eigenvalues of random matrices in the general linear group

Abstract

I will consider random matrices in the general linear group $GL(N; \mathbb{C})$ distributed according to a heat kernel measure. This may also be described as the distribution of Brownian motion in $GL(N; \mathbb{C})$ starting at the identity. Numerically, the eigenvalues appear to cluster into a certain domain Σ_t as N tends to infinity. A natural candidate for the limiting eigenvalue distribution is the Brown measure of the limiting object, which is Biane's "free multiplicative Brownian motion." I will describe recent work with Driver and Kemp in which we compute this Brown measure. The talk will be self contained and will have lots of pictures.

