



## Mathematisches Kolloquium

Am Freitag, dem 05. Juni 2015 spricht um 14 Uhr c. t. im Hörsaal IV  
der Fachrichtung Mathematik (Gebäude E24)

**Prof. Dr. James A. Mingo**  
**Queen's University, Canada**

über das Thema:

### **Integration on the Orthogonal and Unitary Group and Freeness of Random Matrices**

*Abstract:* Asymptotic freeness of random matrices enables one to understand the joint distribution of some non-commuting random variables assuming one knows the individual distributions. This is because free probability gives explicit formulas for computing these distributions, either combinatorially or analytically. So it is now important to understand when these rules can be applied.

One way to get freeness is to randomly rotate a matrix relative to another. I will explain how this can be done through some algebraic and combinatorial arguments. I will also explain some recent results where this still applies even after the matrices have been deformed.

Der Gast wird von Prof. Dr. Roland Speicher betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Kaffee und Tee ab 13.45 Uhr im Konferenzraum der Mathematik (Erdgeschoss, Raum 1.03)

**Die Dozenten der Mathematik**