

## Mathematics Colloquium

## Central zeros of Clebsch-Gordan coefficients

## Robert Donley

## Abstract

Clebsch-Gordan coefficients play a central role in classical particle physics, representation theory, and special functions. ] Based on Wigner's formula (1931), we give a new combinatorial procedure for computing these coefficients using Pascal's triangle. These methods lead to a strong proof of a conjecture by Brudno and Rau on a certain vanishing condition. In turn, nearby families of zeros are revealed and considered. The overall program is joint work with Won Geun Kim and M. S. Ravi.

Wednesday, 15 November 2017, 4pm Smith Hall 204

Tea and refreshments will be served at 3:45pm.