

GRADUATE STUDENT SEMINAR

Guest Speaker: David Galvin

University of Notre Dame

Date: Thursday, March 31, 2022

Time: 2:00 PM

Location: 125 Hayes-Healy Hall

Zoom URL: notredame.zoom.us/j/93888654312



Lecture Title:

Stirling numbers and the normal ordering problem

Abstract

The Stirling numbers of the second kind, introduced in 1730, arise in many contexts — combinatorial, analytic, algebraic, probabilist... I'll introduce these versatile numbers, and describe some of their interpretations and applications. The standard combinatorial interpretation of the Stirling numbers involves set partitions, and this interpretation has a natural generalization to graphs. I'll discuss an application of this generalization to a problem coming from the Weyl algebra (the algebra on alphabet $\{x, D\}$ with the single relation $Dx = xD + 1$). This is joint work with J. Hilyard and J. Engbers.