



**Speaker:** David Galvin  
University of Notre Dame

Friday, October 5, 2012  
4:00 - 5:00 PM  
231 Hayes-Healy Hall

**Title:** “How do I love thee? Let me count the ways...”

**Abstract:**

A major branch of combinatorics deals with counting: once you've established that flanged widgets of all orders exist, it's quite natural to ask *how many* there are of each order. Enumerative combinatorics is filled with many beautiful questions.

In this talk I'll illustrate the sort of approaches that one may take to a counting problem (inductive, recursive, algebraic, bijective, probabilistic, magic,...), by packing into 50 minutes as many proofs as I can of Cayley's formula, that counts the number of labeled trees on  $n$  vertices.