Bi-State Math Colloquium

Who: Wayne Johnson
When: Thursday, Feb. 22, 4:00 pm
Where: Ottensman 124, UW-Platteville

Formal Power Series and Representation Theory

In algebra and combinatorics, we often consider power series as formal objects. In other words, we consider the relationships between a function and its power series representation to be algebraic identities. When we do this, the notion of convergence no longer has any meaning. Instead, power series become a powerful tool for counting the sizes of an infinite family of finite sets. In this talk, we will consider a technique for finding identities in formal power series whose coefficients satisfy some polynomial relation. These seemingly specialized examples have applications throughout mathematics. We will explore some recent applications to representation theory.

Wayne Johnson earned his Ph.D. from University of Wisconsin-Milwaukee in 2015, and is in his first year at UW-Platteville. His mathematical interests include using combinatorial tools to study representation theory, and his non-mathematical interests include tabletop gaming and hanging out with his cats.

UNIVERSITY OF WISCONSIN
PLATTEVILLE
DEPARTMENT OF MATHEMATICS