



Invited Speaker



Dr. Angela Hicks

Assistant Professor of
Mathematics

Lehigh University

“Macdonald Polynomials: thinking abstractly”

Wednesday, November 6, 2019 • Corbly Hall 104 • 4:00pm

Abstract

The Macdonald polynomials are a beautiful example the advantages and disadvantages of abstract mathematics. This basis for symmetric polynomials was first defined indirectly, making them difficult to compute or use for calculations. At the same time, once constructed, the Macdonald polynomials encode a wealth of disparate information, from the number of ways to place n books on a shelf, to interactions between n particles, to efficient ways to compute matrix statistics regularly used for wireless communications. We'll discuss why Macdonald polynomials are useful, what they “look” like, and what we do and don't know about how to compute with them.

*A reception with light refreshments will be held in Corbly Hall
immediately following the talk*