

# **Senior Mathematics Presentations**

**Friday, May 8 at noon WS131**

**Speaker: Elizabeth Kanaly**

**Title: *Convergence of Periodic Continued Fractions***

**Abstract:** This talk will focus on the properties and characteristics of continued fractions in the complex plane with particular emphasis placed on periodic continued fractions. We will discuss the general relationship between continued fractions and linear fractional transformations and will investigate convergence of periodic continued fractions graphically through a series of examples. The corresponding convergence criteria will also be discussed.

**Speaker: Alyssa Lehmann**

**Title: *The Littlewood-Richardson Problem for Schubert Polynomials***

**Abstract:** The Littlewood-Richardson Problem for Schubert Polynomials is a counting problem for intersections of geometrical objects. It remains an open problem. This project will detail the Littlewood-Richardson problem, and will also discuss the need for the problem itself. Furthermore, we will approach this problem using a different set of polynomials, the Hulsurkar Polynomials, which form an algebraic space in the same geometric space as the Schubert Polynomials to see if we can gain any insight into a solution of the Littlewood-Richardson problem.