UNDERGRADUATE MATH SEMINAR

The next math seminar will be

DATE: <mark>**THURSDAY, May 18**</mark>

Time &   **12:30** – Refreshments in **Bailey 204**

Location: **12:50 – 1:45** Seminar in **Bailey 207**

In this seminar, **Professor Tori Day** from the Department of Mathematics at **Mount Holyoke College** will present the following talk:

Professor Tori Day

Title: How Many Ways Can You Write a Number as a Sum of Four Squares?

Abstract: Given a natural number n, how many ways can you write n as a sum of four squares? For example, if we want to write $1 = a_1^2 + a_2^2 + a_3^2 + a_4^2$, how many different solutions (a_1, a_2, a_3, a_4) where the a_i are all integers? (Preview: the answer is 8). In this talk, we will learn how to answer this number theory question using powerful functions called modular forms, along with some ideas about vector spaces and bases. We will focus on answering our question and getting exposure to some different mathematics, as opposed to technical definitions; and no background with any of the tools we need for the talk will be assumed.

Scenes from the Steinmetz Symposium, Friday, May 12, 2023

At the Steinmetz Symposium, eight students presented wonderful math talks. Clockwise from right: Daniel Tyebkhan, Mayah Teplitskiy, Julian Zapata-Hall, Shizhe Li and $K_{5,5}$, Aidan McAuliffe, (from L to R) Jordan An, Shizhe Li, Lixuan Xiong, Michael Nyikos.