**Title:** Are decompositions of a module unique?
**Speaker:** Dr. Silvia Saccone, Case Western Reserve University
**Date:** Thursday April 26th
**Time and Location:** 12:00-12:50pm, 3-1623

**Abstract:** Integers enjoy a key property: by the Fundamental Theorem of Arithmetic, every nonzero integer can be factored uniquely into a product of primes. What can we say about "factorizations" in other algebraic structures? In the last half century, there has been a lot of interest in the study of direct-sum decompositions of finitely generated modules over commutative local rings. In this talk, I will describe the analogy between direct-sum decompositions of modules and factorization in integral domains, and discuss results that will shed light on the direct-sum behavior of modules. (Under)graduate students are encouraged to come and explore these fascinating areas of mathematics.