AN INTRODUCTION TO NON-UNIQUE FACTORIZATION

What: Bi-State Math Colloquium
When: Wednesday, March 20, 4:00PM
Where: Loras College, Hennessy 350
Who: Christopher Park Mooney

In this talk we take a look at the theory of factorization, both unique and non-unique. We begin with the integers and discuss several properties that make the integers a very well-behaved integral domain, especially from a factorization standpoint. We then move our attention to studying examples of integral domains in which elements may have several different factorizations. We then introduce an accessible example of a ring with zero-divisors and illustrate the difficulties that arise when studying factorization in rings which are not integral domains.

Chris Mooney is a graduate student studying mathematics at the University of Iowa.