

# Undergraduate Colloquium in Mathematics

Illinois State University

1:00-1:50 PM CST, October 14th, 2021

Speaker: Michael Penn, Randolph College

## Discrete Calculus and Interesting Sums

Abstract:

Why is it that finding a definite integral is often much easier than calculating a finite sum, even though the notion of an integral requires more machinery? The “obvious” answer is the beautiful result known as the Fundamental Theorem of Calculus. In this talk, we explore the possibility of a similar result to the calculation of finite sums. As a nice application, we will look at alternative derivations of some well-known finite sum identities.

