



Department of
Mathematical Sciences

Graduate Student Colloquium

Mr. William Erickson

University of Wisconsin-Milwaukee

Friday,
Feb. 25, 2022

EMS Building
Room E495
12:30 pm



Mr. William
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A show-and-tell of generating functions

A generating function is often described as “a clothesline on which we hang up a sequence of numbers to display.” Specifically, a generating function is a formal power series whose coefficients encode the terms of a given sequence; for example, the famous geometric series $1/(1-x)$ is the generating function of the constant sequence $1, 1, 1, \dots$. In this talk, we present a casual survey of some of the speaker’s favorite generating functions, which are meant to showcase both the combinatorial power and the pure fun of this idea. The audience is encouraged to bring any of their own favorites to share at the end as well.



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