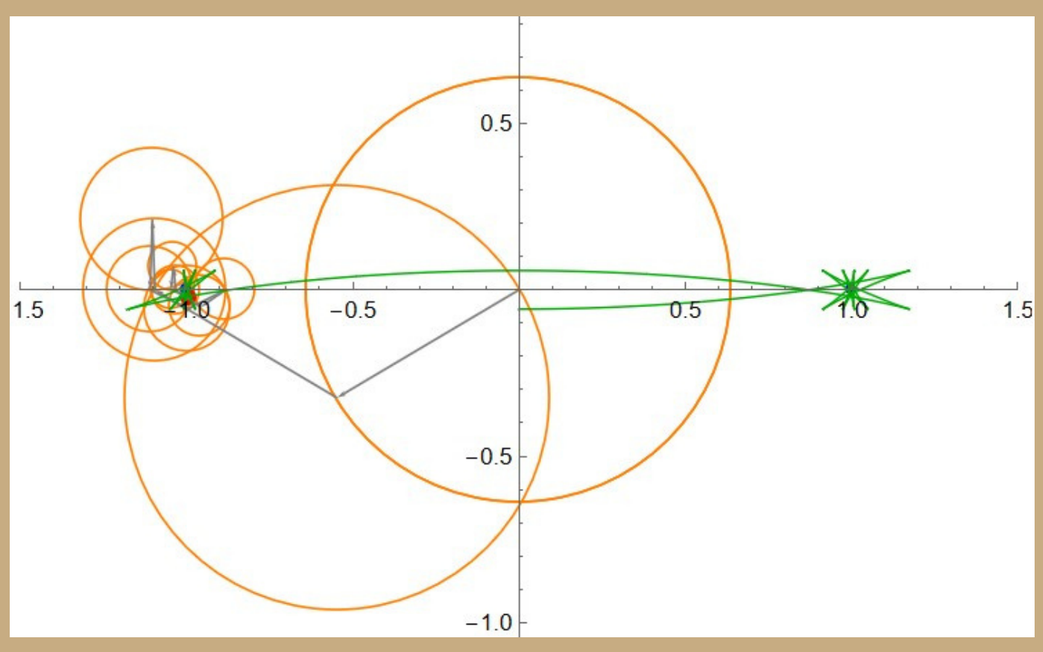
Department of Mathematics
Fall 2022
Colloquium Series

Fourier Series: The Beauty of Circular Motion, part II



With Walden Freedman

Thursday, November 3
4 PM
BSS 166

We continue our exploration of Fourier series of periodic complex-valued functions. We will first examine two Wolfram Demonstration Projects by the speaker (available at http://demonstrations.wolfram.com). After some brief discussion of the Riemann zeta function, we will review the Fourier area formula and proof from the previous talk. We will apply it to the case of hypocycloids, and then apply it to a certain family of periodic (complex-valued) functions. The result is a recursive formula giving the values of the zeta function on the even integers greater than or equal to 4. Participants are expected to have some familiarity with infinite series and complex numbers.

FOR MORE INFO GO TO
HTTPS://MATH.HUMBOLDT.EDU/GET-INVOLVED/MATHEMATICS-COLLOQUIUM

WE CORDIALLY INVITE YOU TO THE PRE-COLLOQUIUM TEA ON THE THIRD FLOOR OF BSS AT 3:30 PM