



Announcing

A Seminar Presentation

on Thursday

September 6, 2018

at 3:00 pm in

North Hall 102

at The University of New Haven

$$\text{Is } 1 + 2 + 3 + \dots = -\frac{1}{12}?$$

— **Dr. Ryan Tully-Doyle**

Department of Mathematics & Physics
University of New Haven

Abstract: In 2014, a popular math channel on YouTube posted an (incorrect) argument that the sum of the natural numbers is $-\frac{1}{12}$. What did they mean? How can this possibly be true? We will show why their argument was wrong, but also in what sense their result is correct. We will look at the story behind this claim, which involves work of Euler, Weierstrass, Chebyshev, and Riemann, and fuses ideas from number theory, infinite series, real and complex analysis, and some of the fundamental special functions. The talk is intended to be accessible to undergraduates.

Further Information

For further information, please contact Dr. Yasanthi Kottegoda at the Department of Mathematics and Physics, Office: Maxcy 315, 203-932-1206, YKottegoda@newhaven.edu.