

**Department of Mathematics and Statistics Colloquium**

# **Continued Fractions**

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**Abstract:** A continued fraction is a way of representing a rational number by a finite sequence of integers. If we allow *infinite sequences*, they can also be used to represent irrational numbers; in fact, each irrational number has exactly one such representation. Continued fractions are closely related to the Euclidean Algorithm, and have appeared in many contexts throughout history, though a systematic theory began to develop only in the 17th and 18th centuries.

In this talk, I will discuss the basic theory of Continued Fractions as well as one application. It should be understandable to anyone who has taken high-school algebra—there won't even be any calculus!

**Monday, September 29 at 3:45 in Room 103**  
**refreshments at 3:30**