

### DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

# Colloquium

## LONG-TIME EXISTENCE OF THE ANOMALY FLOW

#### Caleb Suan UBC

#### **ABSTRACT:**

Conifold transitions are a mechanism in which a Calabi-Yau 3-fold is deformed into another by contracting curves and smoothing out the resulting conical singularities. It is fantasized that all Calabi-Yau 3-folds can be linked by a sequence of these transitions, however they do not preserve the Kähler condition. In this talk, I will discuss string-theoretic generalizations of the Kähler condition and a proposed method to obtain these structures known as the anomaly flow. In particular, I will touch upon a result that determines whether we can extend the flow past a certain interval.

> 4 – 5pm Wednesday, November 06, 2024 Room 204, Smith Hall