



Pacific Institute of the Mathematical Sciences

# STUDENT PRESENTATION

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### **Title:**

A brief introduction to Gowers' norm and generalized von Neumann theorem

### **Abstract:**

What is the absolute value of  $-10$ ? It is  $10$ ! The absolute value is a norm on real numbers. Here we introduce a norm that we are not familiar with. The Gowers' norm was introduced by Timothy Gowers in his work on Szemerédi's theorem. It also plays an important role in the proof of Green-Tao's theorem. In this talk, we will talk about some basic properties of Gowers' norm and give a sketch proof of the von Neumann theorem. *This talk is accessible to students with any background.*

Friday—November 9, 2018

12:00—12:50 pm

UHall D634

**SNACKS!**