

**Date:** March 9

**Speaker:** Yuxin Zhou

**Title:** Partition of  $\mathbb{R}^n$  with distinct distances

**Abstract:** I will present the result in 1987 by K. Kunen, assuming CH (Continuum Hypothesis), that there is a countable partition of  $\mathbb{R}^n$  such that each piece has distinct distances, hence has no isosceles triangle. The relevant Euclidean geometry will be discussed. The idea of the proof will help me to construct balanced forcings for isosceles triangles in  $\mathbb{R}^n$  for new independence results.