Department Colloquium

Speaker: Brian Cook, Fields Institute
Time: 2:30 p.m.
Place: Jeffery 234
Title: Roth-type Theorems in Euclidean Spaces

**Abstract:** We shall discuss a result concerning sets of positive upper density in Euclidean spaces and 3-term arithmetic progressions. In particular, this talk will overview recent work (joint with Malabika Pramanik and Akos Magyar) which shows that appropriate dense sets contain 3-term arithmetic progressions of all sufficiently large gaps when the gap size is measured in certain metrics which differ from the standard Euclidean metric. Results of this type with the standard Euclidean distance are known to fail.