

UCCS Department of Mathematics

# Math Colloquium Series

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**DATE:**

MARCH 17, 2016

**TIME:**

12:30PM-1:30PM

(REFRESHMENTS AT 12:15PM)

**LOCATION:**

OSBORNE CENTER

ROOM# A327

## Arithmetic Sets in Groups

**Abstract:** In this talk, we introduce the notion of arithmetic set for an arbitrary, finitely generated group. Every tile of a group is an arithmetic set, while arithmetic sets form a larger class of subsets. Arithmeticity strongly reflects the geometry of the group. For example, in negatively curved groups, such as free groups of rank at least two, being arithmetic is a loose condition on sets, while in groups at the other extreme, such as cyclic groups, it imposes very strong conditions with number-theoretic flavor. This is a joint work with Azer Akhmedov.