

# Department of Mathematics and Statistics

# COLLOQUIUM

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## Pick a tree, any tree

**Abstract:** Trees are important structures in graph theory, with applications to network design and reliability. They're also fun to count. In this talk, we'll count the number of subtrees of various graphs. The main goal of the talk is to answer this question: Suppose you pick a subtree at random from a complete graph. What is the probability that your subtree is a spanning tree, i.e., a tree that connects all the vertices to each other? The answer is surprising, and it only depends on a little calculus. No prior background in graph theory is needed for this talk. This is joint work with REU students Alex Chin, Kelly McPhee, and Charles Vincent.

**Tuesday, November 7th SCIENCE CENTER 199**

**Refreshments 4:15**

**Talk 4:30**