

Stanford University
Departments of Mathematics and Statistics

PROBABILITY SEMINAR

4pm, Monday, November 26, 2018
Sequoia Hall Room 200

Refreshments served at 3:30pm in the Lounge.

Speaker: Jacob Fox, *Stanford Mathematics*

Title: A solution to the Burr–Erdős problems on
Ramsey complete sequences

Abstract:

A sequence A of positive integers is r -Ramsey complete if for every r -coloring of A , every sufficiently large integer can be written as a sum of the elements of a monochromatic subsequence. Burr and Erdős proposed several open problems in the early 1980s on how sparse can an r -Ramsey complete sequence be and which polynomial sequences are r -Ramsey complete. Erdős later offered cash prizes for two of these problems. We prove a result which solves the problems of Burr and Erdős on Ramsey complete sequences. The proof uses tools from probability, combinatorics, and number theory.

This is joint work with David Conlon.