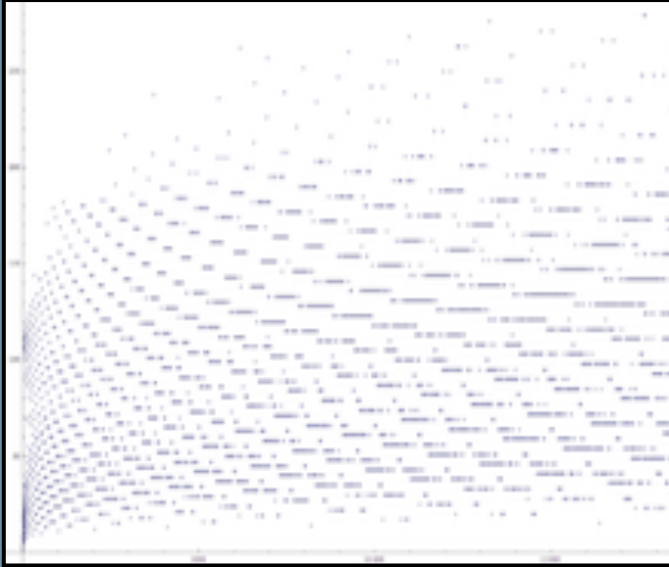


UCCS Department of Mathematics

Math Colloquium Series

DR. STANISLAV VOLKOV
LUND UNIVERSITY, SWEDEN



DATE:

MAY 24TH, 2018

TIME:

12:30PM-1:30PM

LOCATION:

OSBORNE
A327

$5x+1$: how many go down?

Abstract: Randomly-labeled trees studied using the probability theory can provide an important insight on the $5x+1$ version of the notorious Collatz problem (which deals with the $3x+1$ map). Though no rigorous number theory results will be presented in my talk, a number of properties of the trees with random labels will be rigorously established, which turn out to be relevant for the number theory problem above.

The work is inspired by the 12th Abel Prize winner Yakov Sinai's earlier work on the statistic of $3x+1$ problem.