# The SUMO Speaker Series for Undergraduates Thursday, January $9^{\text {th }}$ <br> 4:15-5:05, room 380C <br> (Food Provided) 

## The Multiplication Table Problem Professor Kannan Soundararajan



## Abstract:

Consider the multiplication table obtained by multiplying two numbers up to $N$. How many distinct numbers are in this table? I'll explain results of Erdös and others on this problem showing that very few numbers up to $N^{2}$ appear in the multiplication table. These results are part of the general story of understanding what the factorization of a typical integer looks like.

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