Lucy Martinez
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presents

THE POWER OF COMPUTATION

Abstract: In this talk, we will go over two kinds of games. First, we will discuss the following game: you roll a fair standard die, and add the outcomes of the die until the sum happens to be prime. We will then generalize this from a standard die with six faces to a die with fifteen faces. Next, we will talk about the St. Petersburg paradox: a gambler is tossing a fair coin, if it lands on heads, the gambler gets two dollars, and has to leave the casino. Otherwise, the gambler stays, and tosses the coin again, and if it lands on heads, the gambler gets four dollars and has to leave. The reward doubles each time. We will study the finite version of the St. Petersburg paradox.

In studying both games, we will use three kinds of computations: simulation, numeric, and symbolic to demonstrate that we can obtain the probabilities of (1) getting a sum of primes and (2) the probability of not losing money in the St. Petersburg paradox.

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Wednesday, Oct 18 @11:00 am

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MATHEMATICS & STATISTICS DEPARTMENT