# **GRADUATE SEMINAR**

## Tannen Acoose

### **On the Partially-Geometric Distribution**

PhD Student supervised by Andrei Volodin and Shaun Fallat

#### August 4, 2023 1:00 pm Math Lounge (CW 307.20)

#### **Abstract:**

The classical Geometric distribution, with parameter p, can be interpreted in two competing ways. What is subtle, is that once you interpret the Geometric distribution in one way, then it is no longer clear how to view it in this alternate manner. So instead of viewing a Geometric random variable as just two ways to produce the same distribution, consider it as though no random variable can produce the same probability model.

Given this opportunity, a new family of distributions can be derived by considering both such interpretations of the Geometric distribution.

Along these lines, I will consider a family of probability distributions that considers a difference with an additional parameter  $\alpha$ , and derive test parameters for p and  $\alpha$  in the discrete case.



