

# GRADUATE SEMINAR

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## Discrete Transmuted Record Type Exponential Distributions

*PhD Student supervised by Professor Andrei Volodin*

**Date: April 03, 2024**

**Time: Wednesday at 3:30 PM**

**Location: RI 209**

**Abstract:** This study represents a comprehensive exploration into the development of the discrete transmuted record type exponential distribution, and the introduction to first-order integer-valued autoregressive process. Our study includes cumulative sum and exponentially weighted moving average that may be incorporated with newly developed first-order integer-valued autoregressive process with discrete transmuted record type exponential (INAR(1)DTRTE) distributed innovation to address challenges associated with discrete data and dependencies. The explicit quantile function of the discrete transmuted record type exponential distribution facilitates distinct parameter estimation approaches that may enhance the modeling capabilities of the INAR(1) process.

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