

# ABRHS Research Club Intro to Random Variables and Sampling from Random Functions Workshop

## **Workshop Title:**

Intro to Random Variables and Sampling from Random Functions hands on workshop

## **Workshop Date:**

June 10 2025

Welcome to the "Intro to Random Variables and Sampling from Random Functions hands on workshop", scheduled to take place on June 10 2025, within the Data Science track of the ABRHS Research Club.

## **Workshop Objective:**

Hands on tutorial session focused on random variables and their applications for Data Science

# **Workshop Outline:**

### Concepts:

- 1. Probabilities and Random Variables
  - Concept 1: Real Life Examples of Random Variables
  - Concept 2: What is a Random Variable?
  - Concept 3: Vocabulary Stochastic vs Deterministic
  - Concept 4: PDF vs CDF
- 2. Normal Distributions
  - Concept 1: What is the Exponential Function?
  - Concept 2: The Normal Distribution
- 3. Sampling
  - Concept 1: What Is Sampling and Why Do We Sample
  - Concept 2: Sampling from a Normal Distribution
  - Concept 3: Sampling from an Arbitrary PDF