Lecture 4: Random Process

Introduction to Data Analysis Techniques

1 Random Variable

2 Probability Density Function

3 Random Number Generator

Definition 3.1 (Pseudo Random Number Sequence)**.** [def:pseudo-random-number-sequence] A *pseudo random number sequence* is a sequence which looks random

Definition 3.2 (Pseudo Random Number Generator (PRNG))**.** [def:pseudo-random-number-generator-prng] A *pseudo random number generator* is a deterministic algorithm which generates a pseudo random number sequence.

Example 3.1 (Simple Generator)**.** [eg:simple-generator]

$$x_n = (ax_0 + c)\%m$$