

EKT-816 Lecture 1

Probability Review (1)

Jesse Naidoo

University of Pretoria

PDFs, CDFs, and Quantiles

Moments

Example: Pareto Distributions

Inverse CDF Trick

Marginal and Conditional Distributions

Basic Rules

Example: Zero Correlation, But Not Independent

Conditional Expectations

Law of Iterated Expectations and Variance Decomposition

Example: Censored Normal Distribution

Modes of Convergence

Law(s) of Large Numbers

Central Limit Theorems

Desirable Properties of Estimators

References

Table of Contents

Univariate Distributions

Joint Distributions

Classical (Frequentist) Statistics