

Introduction to Module 3

Johns Hopkins Engineering

625.461 Statistical Models and Regression

Module 3 – Lecture 3A



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Topics of Module 3

Module 3 covers the following topics:

- Multiple Linear Regression Model - Basics
- General Multiple Linear Regression Model
- Data and Model Structures for Multiple Linear Regression Analysis
- Least-Squares Estimation, Sum of Squares and Mean Squares
- Geometric Interpretation of Least-Squares Fitting
- Properties and Variance-Covariance of Least-Squares Estimators
- Gauss-Markov Theorem
- Testing Individual Regression Coefficients
- Maximum Likelihood Estimation



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