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Nota di contenuto	An Introduction to Regression Graphics; Contents; Preface; 1 Getting Started; 1.1 Doing the examples; 1.2 A Very Brief Introduction to Xlisp-Stat; 1.2.1 Entering Data; 1.2.2 Working with Lists; 1.2.3 Calculating the Slope and Intercept; 1.2.4 Drawing a Histogram; 1.2.5 Drawing a Scatterplot; 1.2.6 Saving and Printing Text; 1.2.7 Saving and Printing a Graph; 1.2.8 Quitting Xlisp-Stat; 1.3 An Introduction to the R-code; 1.4 Using Your Own Data; 1.5 Getting Help; 1.6 Complements; Exercises; 2 Simple Regression Plots; 2.1 Thinking about Scatterplots; 2.2 Simple Linear Regression 2.3 Assessing Linearity2.3.1 Superimposing the Fitted Line; 2.3.2 Residual Plots; 2.3.3 Average Smoothing; 2.3.4 Regression Smoothing; 2.4 Complements; Exercises; 3 Two-Dimensional Plots; 3.1 Aspect Ratio and Focusing; 3.2 Power Transformations; 3.3 Thinking about Power Transformations; 3.4 Showing Labels and Coordinates; 3.5 Linking Plots; 3.6 Marking and Coloring Points; 3.7 Brushing; 3.8 Name Lists; 3.9 complements; Exercises; 4 Scatterplot Matrices; 4.1 Using a Scatterplot Matrix; 4.2 Identifying Points; 4.3 Transforming Predictors to Linearity; 4.4 Partial Response Plots; 4.5 Complements

Exercises 5 Three-Dimensional Plots; 5.1 Viewing a Three-Dimensional Plot; 5.1.1 Rotation Control; 5.1.2 Recalling Views; 5.1.3 Rocking; 5.1.4 Show Axes; 5.1.5 Depth Cuing; 5.2 Scaling and Centering; 5.3 Two-Dimensional Plots from Three-Dimensional Plots; 5.3.1 Saving h; 5.3.2 Rotation in Two Dimensions; 5.3.3 Extracting a Two-Dimensional Plot; 5.3.4 Summary; 5.4 Removing a Linear Trend in Three-Dimensional Plots; 5.5 Using Uncorrelated Predictors; 5.6 Complements; Exercises; 6 Visualizing Linear Regression with Two Predictors; 6.1 Linear Regression; 6.1.1 The Ideal Summary Plot 6.1.2 Viewing an Ideal Summary Plot When  $\sigma^2 = 0$ ; 6.2 Fitting by Eye; 6.2.1 Fitting by Eye When  $\sigma^2 = 0$ ; 6.2.2 Fitting by Eye When  $\sigma^2 > 0$ ; 6.2.3 Fitting by ols; 6.2.4 Checking a Candidate Summary Plot; 6.3 Correlated Predictors; 6.4 Distribution of the Predictors; 6.4.1 Nonlinear Predictors; 6.4.2 Linear Relationships Between Predictors; 6.4.3 Partial Variance Functions; 6.4.4 Scatterplot Matrices; 6.4.5 Multiple Regression; 6.5 Linear Predictors; 6.6 Complements; Exercises; 7 Visualizing Regression without Linearity; 7.1 General Three-Dimensional Response Plots; 7.1.1 Zero-Dimensional Structure 7.1.2 One-Dimensional Structure 7.1.3 Two-Dimensional Structure; 7.2 Example: Australian Athletes Data; 7.3 Example: Ethanol Data; 7.4 Many Predictors; 7.4.1 The One-Dimensional Estimation Result; 7.4.2 An Example with a Nonlinear Response; 7.5 Example: Berkeley Guidance Study for Girls; 7.6 Example: Australian Athletes Again; 7.7 Complements; 7.7.1 Linearity; 7.7.2 ols Summary Plots; 7.7.3 References; Exercises; 8 Finding Dimension; 8.1 Finding Dimension Graphically; 8.1.1 The Inverse Regression Curve; 8.1.2 Inverse Partial Response Plots; 8.2 Sliced Inverse Regression 8.3 Example: Ethanol Data Revisited

## Sommario/riassunto

Covers the use of dynamic and interactive computer graphics in linear regression analysis, focusing on analytical graphics. Features new techniques like plot rotation. The authors have composed their own regression code, using Xlisp-Stat language called R-code, which is a nearly complete system for linear regression analysis and can be utilized as the main computer program in a linear regression course. The accompanying disks, for both Macintosh and Windows computers, contain the R-code and Xlisp-Stat. An Instructor's Manual presenting detailed solutions to all the problems in the book