

Contents

1 Residual Analysis for Linear Models

1.1 Key Concepts

Residual

Influence

Outlier

Leverage

1.2 Studentized and Standardized Residuals

1.3 Cook's Distance

1.3.1 `influence`

This function provides the basic quantities which are used in forming a wide variety of diagnostics for checking the quality of regression fits.

1.3.2 Interpreting Cook's Distance

1.3.3 Using the `plot` command

- Homogeneity of Variance of Residuals
-
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1.3.4 Coding the four plots together

```
par(mfrow=c(2,2))  
  
plot(FittedModel)  
  
par(opar)
```

1.4 Diagnostics of LME Models