第十一章

设置目录

```
setwd("D:\\data\\chapter 11")
```

例 11-1

```
data11.1<-read.csv("11-1.csv")
xgxs<-cor(data11.1$OAP,data11.1$DON)
xgxs
```

```
## [1] 0.7863221
```

```
cor.test(data11.1$OAP,data11.1$DON)
```

```
##
##  Pearson's product-moment correlation
##
## data:  data11.1$OAP and data11.1$DON
## t = 7.6365, df = 36, p-value = 4.89e-09
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.6233270 0.8838328
## sample estimates:
##       cor
## 0.7863221
```

例 11-2

```
data11.2<-read.csv("11-1.csv")
hg11.2<-lm(data11.2$OAP~1+data11.2$DON)
summary(hg11.2)
```

```
##
## Call:
## lm(formula = data11.2$OAP ~ 1 + data11.2$DON)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
```

```
## -10.8995  -2.9493  -0.1378   2.7526   9.3644
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  4.785631   1.021456   4.685 3.92e-05 ***
## data11.2$DON 0.029695   0.003889   7.636 4.89e-09 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 4.197 on 36 degrees of freedom
## Multiple R-squared:  0.6183, Adjusted R-squared:  0.6077
## F-statistic: 58.32 on 1 and 36 DF,  p-value: 4.89e-09
```

```
confint(hg11.2)
```

```
##                   2.5 %     97.5 %
## (Intercept)  2.71402326 6.85723930
## data11.2$DON 0.02180843 0.03758114
```

例 11-3

```
data11.3<-read.csv("11-1.csv")
hg11.3<-lm(OAP~DON,data = data11.3)
point<-data.frame(DON=178.42)
zxqj<-predict(hg11.3,point,interval="confidence", level=0.95)
zxqj
```

```
##        fit      lwr      upr
## 1 10.08377 8.696164 11.47139
```

例 11-4

```
data11.4<-read.csv("11-1.csv")
hg11.4<-lm(OAP~DON,data = data11.4)
point<-data.frame(DON=178.42)
ycqj<-predict(hg11.4,point,interval="prediction", level=0.95)
ycqj
```

```
##        fit      lwr    upr
## 1 10.08377 1.459544 18.708
```